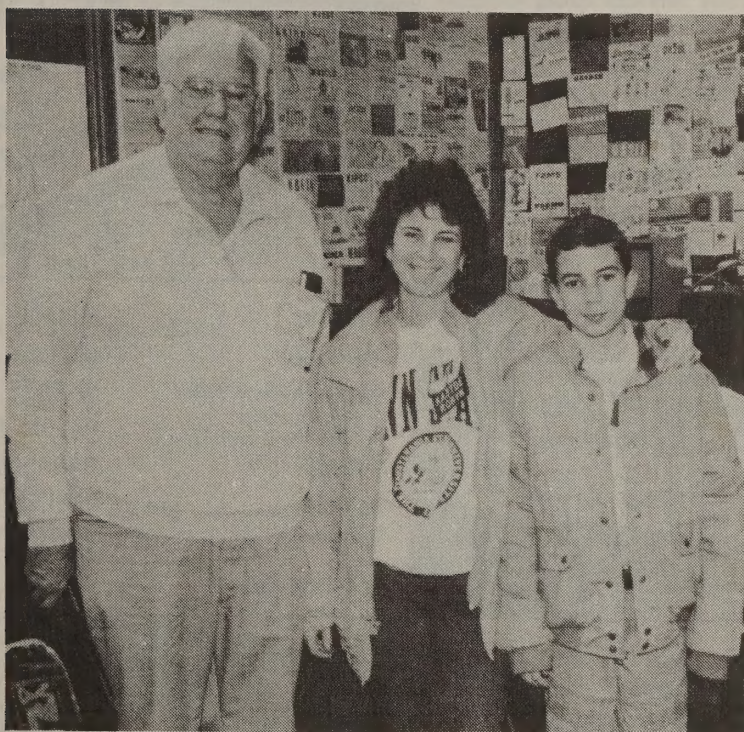




MARCH 1989



You're Never Too Old or Too Young

KA3TDF, KA3TDE, and N3GEU

Three Generation of One Family

Who Completed their Novice Class

See Success Story on page 16



Auto-Call is the Official Journal of the Foundation For Amateur Radio

\$1.00

EEB—AMATEUR RADIO PROFESSIONALS

10 miles west of Washington, D.C. Plan a visit your next trip.



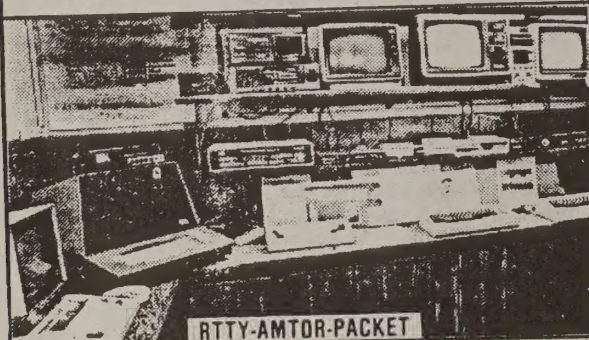
EEB FRONT SHOWROOM

DAIWA	HUSTLER
ETO ALPHA	HYGAIN
FLUKE	ICOM
GENERAL ELECTRIC	INFOTECH
HAL	IWATSU
HEIL	KACHINA
HENRY	KANTRONICS
HITACHI	KDK

AEA	BARKER & WILLIAMSON
ALINCO	BEARCAT
ALPHA DELTA	BECKMAN
AMP SUPPLY	BELDEN
ANTENNA SPECIALISTS	BENCHER
ARRL	BIRD
ASTRON	BUTTERNUT
B&K DYNASCAN	CUSHCRAFT



EEB HAM SHACK



RTTY-AMTOR-PACKET

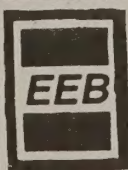
KENPRO	MIRAGE
KENWOOD	MOSLEY
KLM	WM NYE
LARSEN	PALOMAR
LEADER	PANASONIC
MAXON	PHELPS DODGE
MFJ	PHILLYSTRAN
MINI-PRODUCTS	RAMSEY

REGENCY	TRANSWORLD
ROHN	UNADILLA REYCO
SANGEAN	VAN GORDEN
SANTEC	VIBROPLEX
SONY	WACOM
TET	WELZ
TOKYO HY-POWER	WILSON
TOSHIBA	YAESU



SWL SHOWROOM

At EEB we live Amateur Radio. Stop by and compare before you buy.
At EEB, we give service before, during and after the sale. We take good care of you.



Electronic Equipment Bank
 516 Mill St., Vienna, VA 22180

(703) 938-3350

Just 15 minutes via I-66
 west of downtown D.C.



ORDER DESK
 10 AM-5 PM EST M-F
 10 AM-4 PM EST SAT
 Store hours same
 THUR 10-9 PM
 Closed SUN-MON



AUTO-CALL

Official Journal of the Foundation for Amateur Radio

FOUNDATION OFFICERS

Foundation President	Robert Moore, N3CKD (301) 776-3571
Executive Vice President	Nancy Draheim, NK4U (703) 691-0078
Admin. Vice President	Henry Miller, W3BWN (301) 474-7376
Vice President	Robert Henkel, NA3R (301) 649-4494
Vice President	Bob Milligan, KI4MB (703) 534-1319
Vice President	Tony Young, WA3YLO (301) 262-1917
Treasurer	Ed Morrison, W3RY (202) 966-4802
Recording Secretary	Mary Morris, N4TCI (703) 971-3905
Corresponding Secretary	Irene Akers, W3RXJ (301) 423-7138

AUTO-CALL MAGAZINE STAFF

Editor	Ethel Smith, K4LMB (703) 536-8469
Circulation Manager	John Swafford, W4HU (703) 536-9537

Deadline for copy is the 8th of the month. All contributions are welcomed, but the editor does reserve the right to edit or reject any portion of any copy.

Permission is granted for copying any material from AUTO-CALL provided credit is given.

AUTO-CALL is published monthly as the official journal of the Foundation for Amateur Radio. Comments made by columnists do not necessarily reflect the opinions of the Foundation. No effort is made to investigate advertisers, therefore no warranty can be implied.

AUTO-CALL has paid subscriptions of about 1400 and a total circulation of over 1700. Copies are sold at local stores and a number of Swap and Complimentary copies are mailed each month. The magazine is entered as third class non-profit matter at the post office at Arlington, VA.

Subscription rate is \$6 a year.

Subscriptions received after the 15th of the month will be started with the following month's issue.

AUTO-CALL MAGAZINE
P.O. BOX 7612
FALLS CHURCH, VA 22046-1452

MEMBER CLUBS

Alexandria Radio Club
Amateur Radio Research and Development Corp.
Anne Arundel Radio Club
Antietam Radio Association, Inc.
Arlington Amateur Radio Club
Baltimore Amateur Radio Club
Baltimore Radio Amateur Television Society
Capital City Amateur Radio Society
Capitol Hill Amateur Radio Society
Chaverim of the Greater Washington Area, Inc.
Columbia Amateur Radio Association
Department of State Amateur Radio Club
Frederick Amateur Radio Club
Friendship Amateur Radio Club
Goddard Amateur Radio Club
Green Mountain Repeater Association
Johns Hopkins University APL Amateur Radio Club
Laurel Amateur Radio Club
MADRAS
Maryland Emergency Phone Net
Maryland FM Association
Maryland Mobileers Amateur Radio Club
Metropolitan Communications Network Radio Club
Metrovision Amateur TV Club
Montgomery Amateur Radio Club
Mount Vernon Amateur Radio Club
National Capital DX Association
Naval Research Laboratory Radio Club
Northern Virginia FM Association
Northern Virginia Radio Club
Ole Virginia Hams Amateur Radio Club
Pentagon Amateur Radio Club
Potomac Area VHF Society
Potomac Valley Radio Club
Prince George's Wireless Association, Inc.
Quarter Century Wireless Association, Inc.
 Baltimore Chapter #30
 Shenandoah Valley Chapter #137
 Vic Clark Chapter #91
 Washington Chapter #32
Radio Amateur Satellite Corporation
Rock Creek Amateur Radio Association
St. Mary's County Amateur Radio Association
Shenandoah Valley Amateur Radio Club
Southern Maryland Amateur Radio Club
Sterling Park Amateur Radio Club
Tri-County Amateur Radio Club
T-MARC, The Middle Atlantic FM & Repeater Council
Vienna Wireless Society
Washington Adventist Amateur Radio Association
Washington Area Young Ladies' Amateur Radio Club
Washington Radio Club
Woodbridge Wireless, Inc.

GUEST EDITORIAL

By Phil Battey, W3FZV
SM Maryland-DC

TOLERANCE

People, for the most part, try to do their best in whatever their endeavor. Just the fact that they have made an effort indicates that they want to be successful in their attempt. Hams are people, too, and, therefore, by an old example of logic, they, too, try to do their best. Looking on as an observer, you may think their performance is less than you might achieve. Then, simply, their way is not your way. But, remember, "they" have taken responsibility and are trying to do something of value.

There are many more hams who *don't* than hams who *do* take some responsibility in any job. Why do some people seem to thrive on responsibility and the accomplishment of tasks, both assigned and self-originated? Undoubtedly there is more than one answer to this question, but it seems that there is an internal need in some people to try and to struggle and to accomplish. Such people should be commended, for they finish the job, and often do more. For the most part, such persons are not "puffed up" or arrogant about their accomplishments. They deserve our thanks and admiration.

Noticeable as are the accomplishments of a few individuals, we should strive to be tolerant, not only of the achievers, but also of all those (hams) who don't actively participate. We should try to accept behavior which we may feel is not "up to snuff." Encourage and gently prod these people and suggest avenues of improvement. Be a little slow in reaching conclusions. So let's all be friendly, let's talk with our fellows, and think a little of their way. There is so much truth in most opinions and methods and everyone has something to contribute if we only have the patience to wait and to listen. If we are patient and tolerant and understanding, we can form a small collaboration which will benefit all parties.

Phil

INDEX

COLUMNS

ARRL REPORT	9
FCC HIGHLIGHTS	7
PUBLIC SERVICE REPORT	19
TRAINING	17
VOLUNTEER EXAMINER COOP.	13
WANT ADS	55

SPECIAL FEATURES

Amateur Radio in the USSR	W4KM	23
ARES Opportunities	N3AQG	39
Congratulations		31
DIA Letter	K4FPT	29
Guest Editorial	W3FZV	4
Have Bug - Will Travel	W4IIG	36
Novice Success Story	WA3YLO	16
FAR Scholarships Announced		32
Foundation Meetings		34
Silent Keys		34

CLUB REPORTS

Alexandria Radio Club	53
Anne Arundel Radio Club	52
Arlington Amateur Radio Club	43
Department of State ARC	45
Laurel Amateur Radio Club	42
Capital City Amateur Radio Society	44
Metropolitan Communications Net	48
Metrovision ATV Club	46
QCWA Chapter #137	49
Southern Maryland ARC	50
Vienna Wireless Society	51
Woodbridge Wireless, Inc.	47

COMING EVENTS

Greater Baltimore Fest	April 1-2	26
Goddard Swap Meet	April 16	22
QCWA Annual Banquet	April 18	38
Raleigh Hamfest	April 16	14
Roanoke	March 18-19	5
Vienna Winterfest	February 26	57
York Springfest	March 5	58

ADVERTISERS

Amateur Radio Center	33
Collier Satellite TV Systems	35
EEB	2
EGE	10
G & G	54
Maryland Radio	6
RF Connection	59
Virginia Micro	53

Coming Events

Vienna Winterfest '89

Sponsored by Vienna Wireless Society

February 26

The first 1989 Amateur Radio "Flea Market" of the metropolitan area will be held at Vienna, Virginia, on Sunday, February 26. For more information see flyer on page 57

York Springfest

Ham/Computer

March 5

The Second Annual York Springfest (ham/computer) will be held Sunday, March 5 at the Dover Firehall, Dover, Pennsylvania. Inside tables \$10. Registration \$4. Tailgating free. Food, refreshments. VE Exams. Blacktop parking. General Admission 8:00 a.m. Talk-in on 146.37/97 and 147.93/33. For advanced information and registration, call (301) 239-3878 or write: YORK SPRINGFEST, P.O. Box 50, Shrewsbury, PA 17361-0050

Roanoke Division Convention

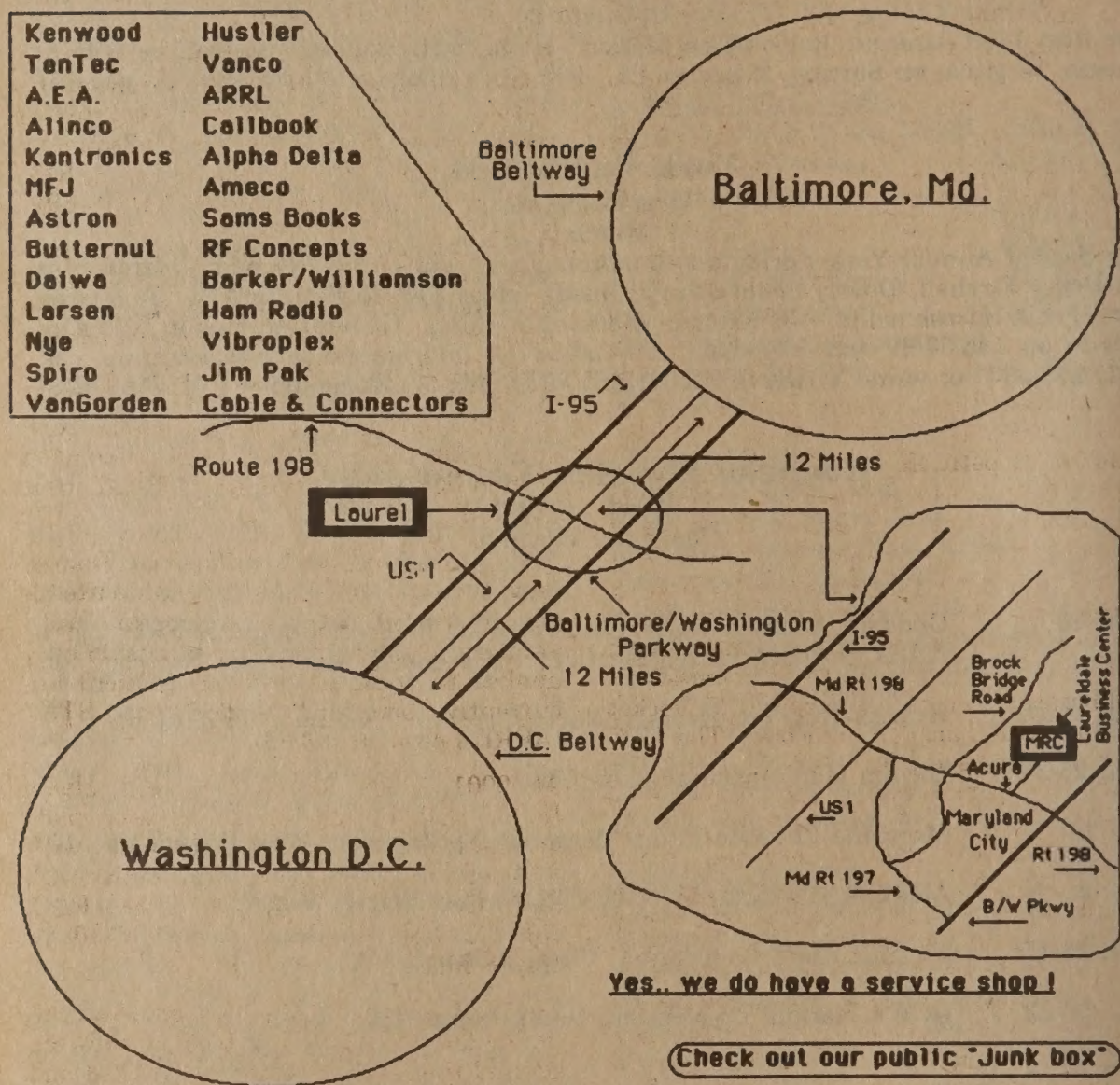
March 18-19

Charlotte, Virginia

- | | |
|----------------|--|
| April 16 | Goddard Amateur Radio Club Amateur Radio & Computer Swap Meet
NASA Goddard Recreation Center, Greenbelt, Maryland. See page 22. |
| April 15-16 | Raleigh Hamfest, Raleigh, North Carolina. See flyer on page 14. |
| April 28-30 | Dayton Hamvention, Dayton, Ohio |
| May 28 | Maryland FM Association Memorial Day Hamfest, West Friendship, MD |
| June 2 - 4 | ARRL NATIONAL CONVENTION, Fort Worth, Texas |
| Sept. 16-17 | Virginia State Convention, Virginia Beach, VA |
| Oct. 20-22 | QCWA National Convention, Baton Rouge, LA |
| 1990 June 8-10 | ARRL National Convention, Kansas City, Mo |

*Please keep Auto-Call advised of important Coming Events.
We are anxious to provide our readers with timely information
and to help you avoid possible conflicts when scheduling activities.*

Maryland Radio Center - Location Strip Map
8576 Laureldale Drive Laurel, Md. 20707
Voice (301)-725-1212
Modem (301)-725-8307 (8N1)



Ham tests (all classes) in our library on
the 4th Saturday of each month. Code 10AM - Theory 11AM.

Our hours are : Tuesday - Friday : 10AM - 7PM
Saturday : 9AM - 5PM
Closed Sunday and Monday

FCC HIGHLIGHTS

by Bill Grenfell W4GF

The battle to save all of the 220 - 225 MHz band for Amateur Radio in Docket 87-14 rages on! Back in Nov. '88 "...United Parcel Service filed a Petition for Rule Making, RM-6595, to 'assist the Commission in the formulation of service rules for the 220-222 MHz band and to ensure that the much-needed spectrum is available on a timely basis." This is an apparent effort to speed up the release of 220-222 MHz frequencies for private Land Mobile use." In filed comments strongly opposing the UPS petition, ARRL said: It is apparent that UPS submitted its petition primarily as an attempt to justify the frequency allocation relative to the appeals, rather than to establish permanent operating parameters for the private land mobile use of the band. "The first half of the petition, for example, makes no reference at all to the specifics of the UPS proposal for implementation of the band, but rather is a statement of the alleged justification for the frequency allocation...the UPS petition is thus no more than an unauthorized pleading submitted with the intent to influence the Commission's deliberations on reconsideration in Docket 97-14." ARRL also pointed out: "The UPS petition, however, seeks to implement a frequency band which may well never be available to the land mobile service. "It would be highly premature, and a waste of the Commission's time and resources, to commence a proceeding which may be rendered moot by action on any of the more than 500 reconsideration petitions now on file. "Even assuming, for argument's sake, that 220-222 MHz was ultimately reallocated to both the government and non-government land mobile services, Paragraph 57 of the 87-14 Order noted there would have to be a coordinated procedure developed for the band between the two users. "It would certainly be premature to propose any channelization plan prior to the development of sharing arrangements between government and non-government services. "The ARRL concluded by urging the Commission to

dismiss the UPS petition." The League has requested the FCC to schedule oral argument before the Commissioners on Docket 87-14. The request concluded with: "Oral argument will permit the League to present, in concise fashion, the truth about the effect of the reallocation on the Service and factual data on the subject which has not thus far been adequately conveyed to the Commissioners." (ARRL Letter, 01/13/89; ARRL Letter, 01/27/89).

In the continuing crackdown on unauthorized radio use, Kingsville, TX FCC investigators visited several station operators who, when asked, said they were unaware that an FCC license was required for operation of these stations on frequencies in and around the Amateur bands. Now silent, further operation awaits action on station license applications. (ARRL Letter, 01/27/89).

"...FCC has expanded the Special Temporary Authority (STA) for certain unattended HF packet stations to operate until January 5, 1990. "The STA extension only applies to those 75 stations [which] are currently operating under the STA." (ARRL Letter, 01/13/89).

At 0001 GMT, 01/30/89 the 17 Meter Band, 18.068 - 18.168 MHz, was made available for use by USA Amateurs with A1A and F1B emission and with A3E, F3E, G3E, A3C, F3C, A3F, F3F, H3E, J3E, & R3E available from 18.110 to 18.168 MHz.

The 220 Spectrum Management Association (220-SMA) of southern California advised the ARRL they were "shocked and dismayed" that the League was withholding future recognition of the 220-SMA as the rightful 220 MHz frequency coordinator. "Southern California has two competing 220-MHz coordinators, the 220-FCC and the 220-SMA, whose coordinations overlap and conflict. "220-SMA said its frequency assigning roots go back to the 1960s. ARRL president Price wrote 220-SMA membership that he did "not agree

FCC HIGHLIGHTS - Continued

with your characterization of the actions of the ARRL Board as 'petty' and your use of language of this type adds very little to the merits of your presentation." Price said their dispute is not with the ARRL, but with FCC "which has muddied the water. If you want to cry 'Foul' (to use your term) it is the FCC which has 'fouled' you." (W5YI Report, 01/01/89).

"The five member FCC has been operating with only three Commissioners for some time." The Senate Commerce Committee refused to hold confirmation hearings...." (on replacement nominees). FCC Chairman Patrick, as did the other Reagan Commissioner appointees, has handed in his pro-forma resignation.

"The George Bush FCC could be markedly different from the Ronald Reagan FCC." Reagan's style....may not be Bush policy." Eighty percent of the FCC budget goes for personnel salaries. "Agency wide manpower has dropped by ten percent, from 1,800 to 1620 employees. "The FCC is also implementing a 1989 belt-tightening program involving early retirements, hiring freezes, travel plan cutbacks, equipment purchase postponement and possible furloughs (leave without pay) since they have to work with \$5 million fewer 'real' dollars. "Many FCC personnel lost due to attrition are not being replaced. "You can anticipate a necessarily slower pace at the agency." (W5YI Report, 10/01/89)."

THE LATEST CALLS ISSUED FOR THE STATESIDE, ALASKA AND HAWAII CALL AREAS WERE: AS OF 1 JAN 1989

GENERAL/

EXTRA	ADVANCED	TECH.	NOVICE
NU1Z	KC1NA	N1GEO	KA1SZU
WM2X	KE2KT	N2IVX	KB2GVJ
NT3F	KD3KX	N3GSU	KA3TZF
AB4MH	KM4LX	N4UQF	KC4IGC
AA5JM	KG5QJ	N5NQV	KB5IDT
AA6MB	KJ6PM	N6TYB	KC6BKJ
WV7Z	KF7QI	N7MBB	KB7GLA
WN8K	KE8VX	N8KEP	KB8GCA
WE9X	KE9OC	N9IAG	KB9BWQ
WQ0H	KF0AD	N0KAN	KB0DTE
HAWAII	AH6JM*	NH6SH	WH6CBP
ALASKA	AL7KR*	NL7PJ	WL7BTD

* EXTRA CLASS ALSO ASSIGNED
FROM THIS GROUP

END-OF-MONTH LICENSE TOTALS

	NOV 1988	DEC 1988
EXTRA	46,735	46,885
ADVANCED	98,463	98,681
GENERAL	112,974	113,082
TECHNICIAN	100,878	101,495
NOVICE	79,988	80,168
TOTALS	439,038	440,311

American Radio Relay League Report

By John Swafford -- W4HU

This ARRL Report provides a brief summary of information published in the ARRL LETTER and other reports. The LETTER provides timely news of interest to active Radio Amateurs. Any League member may subscribe to the ARRL LETTER.

=====

ARRL BOARD OF DIRECTORS MEETS.

The ARRL Board of Directors held its annual meeting in Hartford on January 20 and 21. President Price, Executive Vice President Sumner and Counsel Imflay all reported on aspects of the tireless and many-faceted campaign to retain the entire 220 to 225 MHz band. The most recent action was to request oral argument on the ARRL Petition for Reconsideration of the FCC decision last August to reallocate 220 to 222 MHz to the Land Mobile Service.

In other matters, the Board set out guidelines for Reply Comments in PR Docket 88-139, concerning rewrite of the Amateur rules. ARRL will file in favor of expanding the six meter repeater subband down to 51 MHz in PR Docket 88-527, with use of the band to be determined by detailed band planning. The Board asked its officers to follow up on PRB-3, concerning special call signs. It has been more than a year since the close of comments, with no action by the FCC. The Board reaffirmed the League position that all Amateur communications for news media must meet all the elements of the FCC four-part test. The Executive Committee is to develop and implement plans of action to bring about a higher level of FCC enforcement of the Amateur rules and to cause FCC to use the authority given it by Congress to control the immunity of electronic devices to RFI. Regular summaries of government activity related to Amateur Radio are to be published by the League.

Turning to ARRL affairs, Directors Hugh Turnbull, Grauer, Mendelsohn and Frenaye were elected to the Executive Committee, Directors Metzger and Butler, and Dick Eilers, W0YZV, were elected to the ARRL Foundation Board, and EVP

Sumner will replace Perry Williams as ARRL Secretary. HQ was authorized to proceed with development and purchase of a system to automate the DXCC process. Washington State was divided into two ARRL Sections along the Cascade Mountains. A statement of purpose was adopted for the ARRL VEC. The eighth ARRL Computer Networking Conference was set for October 7 in Colorado Springs, Colorado. HQ is to implement an Educational Advisor Program. Several motions were adopted in support of the ARRL National Emergency Response Committee (ANERCOM). Several motions were adopted to improve the process of electing Directors and Vice Directors.

The ARRL will vote to ratify the nominations of Richard Baldwin. W1RU, for reelection as President and Michael Owen, VK3KI, to be Vice President of the International Amateur Radio Union (IARU). The Board also voted to support four of six proposed changes in the IARU Constitution and Bylaws. The Board commended ARRL volunteers involved in the pilot project to recruit new hams in Florida. Appreciation was expressed to AMSAT and especially Rich Ensign, N8IWJ, for bringing Amateur work in connection with SkiTrek to the attention of young people. Out-going Chairman John Parrott, W4FRU, was applauded for his work with the DX Advisory Committee.

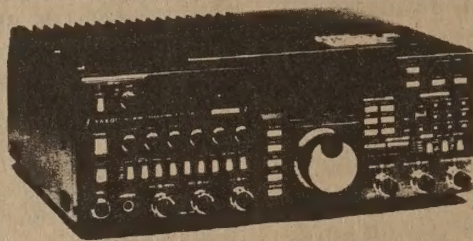
Complete minutes of the meeting will be printed in the March issue of QST.

17 METER BAND OPENS! The good news was brought to us by HQ ARRL via the W1AW Bulletin at 5PM Monday, Jan. 30th. To all Radio Amateurs: FCC is opening the 18 MHz band for Amateur operation. Stations with general, advanced and extra class operators may begin using the 18 MHz band as of 0001 UTC 31 January 1989, one minute after 7PM EST Monday 30 January 1989. Ala emissions may be used in the whole



EGE Has What Every Ham Wants-

- Factory Authorized Sales & Service for All Major Manufacturers
- Discount Prices
- Knowledgeable Staff
- Full Service Department



YAESU



ICOM

RADIOS

Kenwood, Icom, Yaesu, Alinco, Ten-Tec, Santec, KDK — HF, VHF, UHF; handhelds, base stations, mobiles; transceivers and receivers.

ANTENNAS

Cushcraft, KLM, Mosley, Hustler, Hy-Gain, Antenna Specialists, Larsen, VoCom, Butternut, for your car, roof, attic, or tower.

TOWERS

Unarco-Rohn, Hy-Gain, Tri-Ex.

ROTATORS

Hy-Gain, Alliance, Yaesu.

ege inc

14803 Build America Drive, Building B, Woodbridge, Virginia 22191
Customer Service: (703) 643-1063; Service Department: 494-8750

Orders & Quotes Toll Free: 800-444-4799

HARDWARE & SOFTWARE

Packet Systems.
Hal, MFJ, Kantronics for RTTY/Morse.

AMPLIFIERS

Ameritron, Amp Supply, Mirage, Ten-Tec, Daiwa, Vocom, Tripplite, RF Concepts, TE Systems, Alinco, Tokyo Hy-Power, Kenwood.

ACCESSORIES

Astron, MFJ, Daiwa, B&W, Saxton, Tokyo Hy-Power, Cablewave, Amphenol and more.



KENWOOD

TEST EQUIPMENT

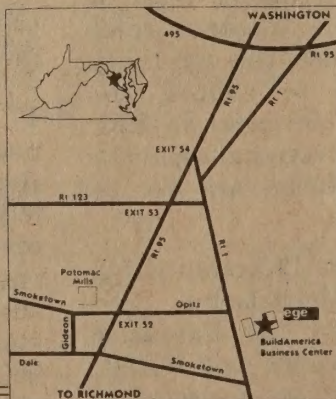
Welz, Daiwa, Tokyo Hy-Power, MFJ, Beckman, Coaxial Dynamics.

SCANNERS/CBs

Regency, Bearcat, Cobra, Uniden.

HEATHKIT

Amateur radios and accessories



Send \$1 for our comprehensive 1988 Buyer's Guide-Catalog.

Store Hours:
M-F: 10 am-6 pm
Sat: 10 am-4 pm

ARRL Report - Continued

band from 18.068 to 18.168 MHz. Digital emission Flb for direct printing, telemetry, telecommand and computer communications is permitted below 18.110 MHz and analog emissions such as FAX, SSTV and phone may be used from 18.110 up. The normal power limit of 1500 watts output applies but Amateur operations must not cause harmful interference to U.S. Government and foreign fixed service operations. The authorization is contained in a report and order PR docket 88-467. Under its terms and those of WARC 79, the band becomes exclusive for Amateur use July 1, 1989.

220 BATTLE RAGES ON. Back in November, 1988, United Parcel Service filed a Petition for Rulemaking, RM-6595, to "assist the Commission in the formulation of service rules for the 220-222 MHz band and to ensure that the much-needed spectrum is available on a timely basis." This is an apparent effort to speed up the release of 220-222 MHz frequencies for private Land Mobile use.

The ARRL has now filed comments strongly opposing the UPS Petition. We said: "It is apparent that UPS submitted its petition primarily as an attempt to justify the frequency allocation relative to the Docket 87-14 appeals, rather than to establish permanent operating parameters for the private land mobile use of the band. The first half of the petition, for example, makes no reference at all to the specifics of the UPS proposal for implementation of the band, but rather is a statement of the alleged justification for the frequency allocation...the UPS petition is thus no more than an unauthorized pleading submitted with the intent to influence the Commission's deliberations on reconsideration in Docket 87-14."

Our petition also pointed out: "The UPS petition, however, seeks to implement a frequency band which may well never be available to the land mobile service. It would be highly premature, and a waste of the Commission's time and resources, to commence a proceeding which may be rendered moot by action on any of the more than 500 reconsideration petitions

now on file."

Even assuming, for argument's sake, that 220-222 MHz was ultimately reallocated to both the government and nongovernment land mobile services, paragraph 57 of the 87-14 Order noted there would have to be a coordination procedure developed for the band between the two users. It would certainly be premature to propose any channelization plan prior to the development of sharing arrangements between government and nongovernment services. The ARRL concluded by urging the Commission dismiss the UPS Petition.

IEEE FELLOWSHIPS AVAILABLE.

Members of The Institute of Electrical and Electronics Engineers (IEEE) who are interested in serving as IEEE Congressional Fellows for the 1989-1990 term are invited to apply for one of the two positions available. Those selected will serve a one-year term on the personal staff of individual Senators or Representatives or on the professional staff of congressional committees, with the IEEE paying half of their salary.

Candidates are selected on the basis of technical competence, ability to serve in a public environment and evidence of service to the IEEE and the profession. Prospective Fellows must have been in the IEEE at the member grade or higher for at least four years.

Applications are available by contacting W. Thomas Suttle at 202-85-0017 or by writing: Secretary, Congressional Fellows Program, The Institute of Electrical and Electronics Engineers, Inc, 1111 19th St NW, Washington, DC 20036. Applications must be postmarked by March 31, 1989.

If you apply, please advise ARRL Washington Area Coordinator Perry Williams, W1UED.

FAR ANNOUNCES SCHOLARSHIPS.

The Foundation for Amateur Radio, Inc. (FAR), a nonprofit organization with headquarters in Washington, DC, plans to award 32 scholarships for academic year

ARRL Report - Continued

1989-90 to assist licensed Radio Amateurs. The Foundation, composed of fifty local Washington area Amateur Radio clubs, fully funds four of these scholarships with the income from grants and its annual hamfest. In addition, it administers other scholarships without cost to the donors. Licensed radio Amateurs may compete for these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled in or have been accepted for enrollment at an accredited university, college or technical school.

Additional information and application forms can be obtained by letter or QSL card postmarked prior to May 31, 1989 from: FAR Scholarships, 6903 Rhode Island Ave, College Park, MD. 20740. See the announcement on page 32 of this issue of Auto-Call.

The Foundation for Amateur Radio is devoted exclusively to promoting the interests of Amateur Radio and those scientific, literary and educational pursuits that advance the purpose of the Amateur Radio Service.

TOP TEN 80-METER SINGLE-BAND DXCC ANNOUNCED. The first ten recipients of the 80-meter single-band DXCC awards have been announced. They are as follows:

- 1) John Devoldere, ON4UN/326
- 2) Bob Eshleman, W4DR/304
- 3) Russel Martin, W3MFW/294
- 4) Randy Schaaf, W9ZR/288
- 5) Albert Hix, W8AH/284
- 6) Austin Regal, N4WW/283
- 7) Robert Dixon, K4MQG/282
- 8) Robert Mitchell, W1NH/280
- 9) Leslie Murphy, K4DY/279
- 10) Richard Roderick, K5UR/276

HEATH'S POCKET PACKET TNCs DONATED FOR USE IN SHUTTLE.

Two representatives from the Heathkit Company recently presented three HK-21 Pocket Packet TNCs to the Johnson Space Center ARC for use in a proposed experiment on a future space shuttle flight.

The primary purpose of the presentation was for use on the proposed Shuttle Amateur Radio Experiment (SAREX) tentatively scheduled for March 1990. If the project is approved, NASA will mount one of the TNCs into the SAREX casing unit, with modifications for use in zero gravity.

HAVE YOU HELPED W1AW YET? If you haven't already given a donation to help with the renovation of Amateur Radio's premier station, W1AW, now is the time!

You have always counted on W1AW for the latest bulletins concerning subjects of concern to Amateurs all over the world, and now W1AW needs your assistance to continue to be the flagship station of Amateur Radio.

Tax deductible contributions can be made by phone or mail. Just address your donation to W1AW Fund Drive, 225 Main St, Newington, CT 06111. Make checks payable to "W1AW Renovation Fund." By phone, credit card contributions can be made by calling Jennifer at ARRL HQ (203-666-1541) between the hours of 8 AM and 4 PM (EST) daily, except weekends. Please help W1AW maintain its leadership on the front lines of Amateur Radio technology. Thanks!

PACKET RADIO VOLUNTEERS ARE SOUGHT. Volunteers in Technical Assistance (VITA) has received expressions of interest from a UN agency in the Sudan for two operators to spend 3-4 weeks there setting up HF packet stations in various locations around the country.

Assignment would begin at the end of February. Preference will be given to those who have HF packet experience, can do this for expenses only (or low fee), and have lived/traveled in developing countries previously.

Anyone interested should contact: VITA, Gary Garriott, 1815 N Lynn St, Arlington, VA 22209, phone 703-276-1800 or 703-243-1865 (FAX).

FOUNDATION FOR AMATEUR RADIO
Volunteer Examiner Cooperative

Nancy Draheim - NK4U
3513 Old Post Road, Fairfax, VA 22030
(703) 691-0078

SCHEDULE OF EXAMINATIONS
1989

IMPORTANT NOTE: If you now have a Technician class license which was acquired prior to March 21, 1987, have a copy of it available when you decide to upgrade.

- Mar. 4 University of Maryland ARC (College Park) (W5YI VEC) Walk-in
Contact: Scott Rosenfeld, NF3I (301) 963-4008
- South Peninsula ARC (Southeastern VA) (ARRL VEC)
Contact: Sid Evans, N4IIC (804) 851-5573
- SW Virginia Wireless (Roanoke, VA) (ARRL VEC) Walk-in
Contact: Gordon Garrett (703) 345-5403
- Mar. 5 Montgomery/Rock Creek/Wash Adventists ARC (ARRL VEC)
Contact: John Muller, W3QF (301) 564-0178
- Mar. 11 Massanutten ARA/Valley ARC (Harrisonburg, VA) (ARRL VEC) Walk-in
Contact: Wayne Miller, KB4WOM (703) 867-5428
- Mar. 18 Richmond Amateur Radio Club (Richmond, VA) (ARRL VEC)
Contact: Ron Bolton (804) 798-5191
- Mar. 19 BRATS (Baltimore, MD) (Laurel VEC) Walk-in
Contact: Steve Silberman (301) 547-7123
- Apr. 1 University of Maryland ARC (College Park) (W5YI VEC) Walk-in
Contact: Scott Rosenfeld, NF3I (301) 963-4008
- Timonium Hamfest (Timonium, MD) (Laurel VEC) **Pre-registration only.**
Contact: Steve Silberman (301) 547-7123
- Apr. 8 Williamsburg Area ARC (Williamsburg, VA) (ARRL VEC)
Contact: Andrew Swanson, WJ4X (804) 253-2811
- Sterling Park Amateur Radio Club (Sterling Park, VA) (ARRL VEC) Walk-in
Contact: Ray Burns, WA3DYP (703) 430-1302
- Apr. 23 Antietam Radio Assn. (Hagerstown, MD) (ARRL VEC)
Pre-registration requested.
Contact: Ken Picone, KC3TT (301) 824-3519
- May 6 University of Maryland ARC (College Park MD) (W5YI VEC) Walk-in
Contact: Scott Rosenfeld N3FI (301) 963-4008
(Continued)

THE RALEIGH AMATEUR RADIO SOCIETY'S

17th ANNUAL NORTH CAROLINA ARRL



HAMFEST



N.C. STATE ARRL CONVENTION
JIM GRAHAM BUILDING, N.C. STATE FAIRGROUNDS
"110,000 SQ. FEET — ALL INDOORS"

APRIL 16, 1989

\$4.00 PRE-REGISTRATION

\$5.00 AT THE DOOR



FLEAMARKET

1 Fleamarket space (1 8-ft. table, 2 chairs) \$7.00;
5 or more tables \$6.00 each. Reg. Dealer Booths are
available — contact us. NO outside facilities available;
24 hr. Security — Vendor set-up Saturday,
4-10 pm; Sunday, 6-8 am. ALL vehicles must vacate the
building by 8 am. Please bring your own handcart.



HAMFEST SOCIAL SATURDAY NIGHT

A welcoming party will be held from 7-10 PM for all.
This will be held in the large meeting room in the
Hamfest building. Food, drink.



SPECIAL INTEREST MEETINGS

ARRL FORUM, narrated by John Kanode, N4MM,
Director, ARRL Roanoke Division

Q.C.W.A., NAVMARS, NTS, ARES, and other
meetings. Times will be announced at the Hamfest.



AMATEUR RADIO EXAMS

By Pre-registration until April 10. Send completed
FORM 610, photocopy of your current license, code/
theory Certificates (if applicable), indicate the highest
class of license you desire to be tested for, and a check
or money order for \$4.75 payable to R.A.R.S. to:

Vince Yakamavich, AA4MY
220 Carriage Trail
Raleigh, NC 27614
Telephone (919) 847-8512

The exams will be held in the HAMFEST BUILDING,
First Floor Meeting Room No. 2, starting PROMPTLY
at 7:30 am. Please bring your Original Current License
and a second form of identification such as a Driver's
License.

VENDOR INFO: Rollin Ransom, NF4P
(919) 269-4406



CW CONTEST IN THE BUILDING



HOMEBREW CONTEST IN THE BUILDING



TALK-IN SATURDAY AND SUNDAY

146.04/64 and 146.28/88



A FULL LINE FOOD SERVICE WILL BE AVAILABLE IN THE BUILDING DURING THE HAMFEST



ATTENTION LADIES

Ladies Hospitality Room and Program.
Refreshments and fellowship all day.

GENERAL INFO: RARS Hamfest
PO Box 17124
Raleigh, NC 27619



Volunteer Examiner Cooperative - Continued)

- May 6 Portsmouth ARC (Portsmouth, VA) (ARRL VEC)
Contact: Art Thiemens, AA4AT (804) 484-2857
- Shenandoah Valley ARC (Middletown, VA) (ARRL VEC)
Contact: Walt Quitter, NC4B (703) 869-5241
- May 13 Frederick ARC (Frederick, MD) (ARRL VEC) Limited Walk-ins
Contact: Rick Ogden, N3RO (301) 845-2670
- May 20 Woodbridge Wireless (Woodbridge, VA) (ARRL VEC)
Contact: Don Ross, WQ4W (703) 670-3414
- May 21 BRATS (Baltimore, MD) (Laurel VEC) Walk-in
Contact: Steve Silberman (301) 547-7123
- June 3 University of Maryland ARC (College Park MD) (W5YI VEC) Walk-in
Contact: Scott Rosenfeld N3FI (301) 963-4008
- Virginia Beach ARC (Virginia Beach, VA) (ARRL VEC)
Contact: Tom Weikel, KA4UNC (804) 340-7697
- July 8 University of Maryland ARC (College Park MD) (W5YI VEC) Walk-in
Contact: Scott Rosenfeld N3FI (301) 963-4008
- George Washington University & Department of State (Washington, DC)
(ARRL VEC) Walk-in.
Contact: Derrill Rohlf - W3WOX (301) 423-0179
- Massanutten ARA/Valley ARC (Harrisonburg, VA) (ARRL VEC) Walk-in
Contact: Wayne Miller, KB4WOM (703) 867-5428

While most examinations are offered on a walk-in basis,
pre-registration is desirable in all cases.

Certificates of successful completion for theory tests are not always accepted.

Check with the contact person for the examination you wish to take.

If you are upgrading from Technician class license acquired prior to March 21, '87
a copy of your license may be required as proof that you are grandfathered
for Element 3B (General theory)

NOTE: All examinations require that you submit:

Copy of your current Amateur Radio license (bring original)

Completed FCC Form 610.

Check for appropriate examination fee.

Maximum fee has been raised to \$4.75.

Fees of individual VEC may vary.

ARRL Exam fee is \$4.75

W5YI Exam fee is \$4.55

Laurel Exams are still free.

Mountain VEC Novice Exams free

All other Mountain VEC Exams \$2.00

This schedule of examinations appears each month in Auto-Call Magazine

Sponsored by the Foundation for Amateur Radio

Please advise NK4U of your examination schedules.

A Success Story

Tony Young, WA3YLO

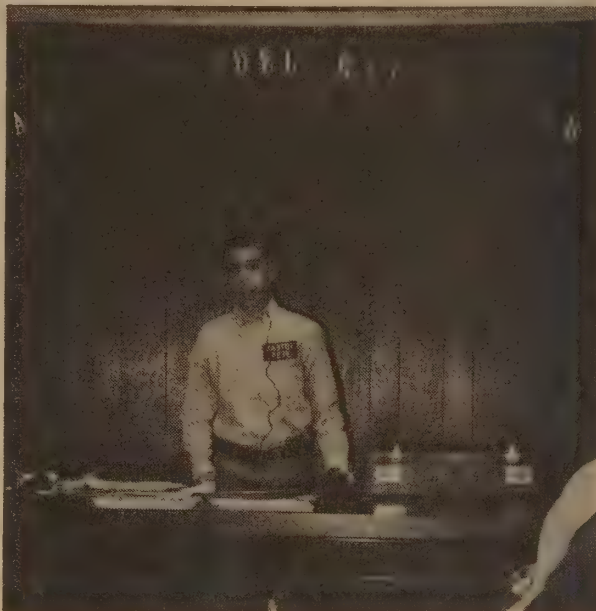
With increased discussion about a possible no code Novice license, and with an ARRL committee appointed to investigate merits and liabilities, we offer evidence of interest in our hobby with only those incentives now in place.

Novice classes are offered each year, in February, on Saturday mornings, by the Anne Arundel Radio Club. Over the past several years, each successive class is larger than the last. Each class has averaged 25 successful graduates over the past three years. This year, the number registering is over 75. As always, there are some "no shows" but the class will settle out at about 60 attending students. Yes, we have several youngsters!

The Anne Arundel classes come with no strings. Many of our students drive quite a distance to get to the meetings. Many others are boaters, and take their license to sea. All who complete the course successfully are offered free membership in the club for the remainder of the year. With support from the membership, many of our graduates become active hams, enjoying the many benefits of upgrading and the pleasure of association with friends they have made in the hobby.

Last year's class produced an unusual combination that answers the perennial questions: "Am I too young ... too old ... too female?" The photo on the front cover shows a three-generation family that graduated from the 1988 class. They are Peter Law - KA3TDF; his mother, Robyn - KA3TDE; and his grandfather, Andy Phillips - N3GEU. All agreed to be at the first meeting of this year's Novice class.

Peter was the spokesman and assured all that they, too, could pass Novice testing. Both Peter and Andy have upgraded to General Class since the April '88 class. This group should inspire doubtful aspirants.



*KA3TDF Encouraging new Novices
Peter has already upgraded to General*

You might ask how we reach so many and get such a regularly large response. Well, we use nine local publications, cable TV, Amateur Radio stores, libraries and grocery store bulletin boards. The success rate is a credit to motivated students and, very importantly, the friendly and helpful club members who are there to help each week. The instructors are experienced and relaxed, and their reward is in seeing the gleam of success from those who pass.



1989 Novice Students at Their First Session

Training Classes

Robert Milligan - KI4MB

6608 N. 18th Street, Arlington, VA 22205

Phone (703) 534-1319 (Home), (703) 533-0650 (Recorder)

Novice Classes, Started February 22, Frederick, MD. Scheduled by the Frederick County Board of Education at Gov. Thos. Johnson High School, Frederick, Maryland. Sessions will be from 7:00 to 8:30 p.m. every Wednesday for ten successive weeks. Instructor will be Hal Silverman - W3HWC. Students will gain a working knowledge of fundamentals of electronics and radio theory, and learn the code. Novice license tests will be available. Further information may be had through Hal Silverman - W3HWC or Steve Bauman, W3FOA.

Novice/Technician Classes, Started February 16, Woodbridge, VA. Sponsored by Woodridge Wireless, Inc. Classes every Thursday evening 7:00 - 9:00 p.m. for 13 weeks. Our Lady of Angels School, Marriage Way (across Rt 1 from Marumsco Plaza), Woodbridge, VA. For more information contact Ed Bayne - N4LJZ at (703) 494-3508 or Bob Walter, NQ4K at (703) 494-1069.

Novice/Technician/General Classes, Started February 13, Vienna, VA. Sponsored by Vienna Wireless Society at Vienna Community Center. For more information, call Paul E. Wilkins, AB4CY (703) 560-2779.

GENERAL INFORMATION

Alexandria Radio Club - Contact Harry Jones - N4CWP (703) 521-4624
Anne Arundel - Contact Tony Young - WA3YLO (301) 262-1917
Baltimore ARC - Contact Ralph Huber - KA3HAM (301) 321-5748
Baltimore Radio Amateurs TV Society (BRATS) - Contact Bill Self (301) 669-0149
Chaverim, Inc. - Contact Bob Teitel - W3IDT (301) 654-3484
Frederick ARC - Contact Steve Bauman - W3FOA (301) 662-4552
Goddard ARC - Contact Chris Spinolo - KA3RTC (301) 776-5710
Laurel ARC - Contact Frank Treadwell - K3LDE (301) 498-2213
MADRAS - Contact Renee Culver - KC3NG (301) 949-9220
Montgomery County Department of Recreation (301) 468-4050
Mount Vernon ARC - Contact John Forrest - WZ4A (703) 971-3905
Rock Creek ARA - Contact Walt Ramsey - AK3B (301) 949-3954
Shenandoah Valley ARC - Contact Walt Quitter - NC4B (703) 869-5241
Southern Maryland ARC - Contact Bob Currn - KA3GCC (301) 627-3040
Sterling Park - Contact Art Nevins - WA4NTP (703) 437-9382
Tri County ARC - Contact Al Sines - WA3QGA, P.O. Box 710, College Park 20740
Vienna Wireless - Contact Paul Wilkins - AB4CY (703) 560-2779
Washington Adventists - Contact Henry Miller - W3BWN (301) 474-7376
Woodbridge Wireless - Ed Bayne - N4LJZ (703) 494-3508

Local clubs are urged to list their training programs with the Auto-Call far enough in advance for effective publicity.

Authors Wanted

ARRL Headquarters invites Amateur Radio instructors to write papers for presentation at the ARRL 1989 Educational Workshop. Topics for papers include all aspects of Amateur Radio instruction and recruiting, such as: training techniques, curriculum development, acceptance in school systems, one-on-one tutoring, and working with youths, seniors and handicapped. Papers are due at HQ by April 28, 1989.

Papers will be bound and made available at the workshop. Prospective authors should obtain an author's kit direct from ARRL (Attn: Rosalie White, WA1STO, 225 Main Street, Newington, CT 06111 or cal (203) 666-1541).

The workshop takes place at the 1989 ARRL National Convention, Saturday, June 3, 1989, in the Dallas/Ft. Worth, Texas area, at the Arlington Convention Center. Amateur Radio instructors will bring together new ideas and methods they have successfully tried in their classes. Announcements and showings of new aspects of the ARRL Instructor Program, including recruitment, will be made at a forum held the same day.

YES!

I WANT TO SUPPORT THE W1AW RENOVATION

If you haven't already given a donation to help with the renovation of Amateur Radio's premier station, W1AW, now is the time. Send your check to W1AW Renovation Fund or phone your credit card contribution to Jennifer at (203) 666-1541 (Weekdays).

W1AW Renovation Fund Drive

225 Main Street

Newington, CT 06111

All contributions are tax deductible to the extent allowable by law.

ARRL is a 501(c)(3) organization

Please help W1AW maintain its leadership on the front lines of Amateur Radio technology. You have always counted on W1AW for the latest bulletins concerning subjects of concern to Amateurs all over the world, and now W1AW needs your help to continue to be the flagship station of Amateur Radio. Please give generously.

Check enclosed for \$ _____ Name _____ Call _____

Please charge my gift of \$ _____ Address _____

to my _____ MC _____ Visa _____ AmEx _____

Credit card No. _____

Expiration Date _____

City _____

State _____

Zip _____



PUBLIC SERVICE REPORT

Hank Black, KN3U

Material for the PUBLIC SERVICE REPORT can be left on the N4QQ PBBS (145.03,.05 or via DCA3) addressed to N3ESR, called over the telephone by modem on arrangement or mailed to Public Service Report, 105 North Van Buren Street, Rockville, Maryland 20850-1860. Deadline for receipt of material is the sixth of the month.

Editor Needed

Apply your writing and editing skills to the PUBLIC SERVICE REPORT. Have we overlooked someone? Did you miss the call for the editorship? If you did, don't worry there is still time to volunteer. If you have interests in the areas of emergency radio services or public service event communications, editing the Public Service Report will be a rewarding job. For further information, please contact the Auto-Call Editor, Ethel Smith - K4LMB, at (703) 536-8469 or Hank Black - N3ESR at (301) 340-8595 for further information. In the interim period, Hank will be taking on the editing duties of the PSR column.

— Late Breaking News —

Congradulations to Nancy Alley KD3KJ on her appointment as Emergency Coordinator for Anne Arundel County. She can be reached at (301) 766-0129. The answering machine is very patient! And, she does return your call.

Fairfax County ARES has a friend in Brad Mechem WA4YVM. He and Joe Peters WB4WZZ, Fairfax County EC, have arranged for a new 2 meter repeater, WA4YVM/R, on Fairfax Hospital. It is currently operating on the Repeater Builder's Channel of 145.17 MHz with PL access (3A - 127.3 Hz).

Normal operation requires the use of PL 3A for access. In the event of an emergency, the repeater will be carrier accessable with the PL turned off. Comments, questions and/or reports regarding the repeater should be directed to Joe WB4WZZ at (703) 241-0078.

— National Capital ARES Council —

In the past, you may have occasionally noticed a feature article about our hobby in the lifestyle section of your local newspaper. Now, with startling frequency, ham radio is showing up in the news section of The Washington Post.

News editors tend to focus on the contributions of individual hams. This human interest angle personalizes the news an appeals to mass audiences. However, most emergency communication is not provided by isolated individuals acting on their own. Rather, it comes from Radio Amateurs who have organized and prepared for disasters.

(Continued)

Public Service Report - Continued

Our role as emergency communicators can be greatly enhanced by actively planning and preparing in advance. This is the rationale behind the Amateur Radio Emergency Service (ARES).

If you are an active Amateur Radio operator or can be, you should consider getting involved.

One of the most popular ARES activities is OPERATIONS. As an experienced ham, you have already completed half the required training. ARES will build on your knowledge and help you develop skills in traffic handling and efficient net operations.

Another area for participation is in the TECHNICAL arena. A small group of ARES members is actively developing packet radio software to handle emergency traffic. Others are designing a network of linked UHF repeaters to support emergency communications. Still others are actively designing and building local ATV systems for the visual aspect of emergency and public service communications.

Maybe ADMINISTRATIVE work is more to your liking. If you are a people person, then taking charge of a given program and ascertaining that the team members reach their goals might be your cup of tea. You can help in developing procedures and training programs.

If you are interested in learning more about ARES and/or public service communications, and are willing to serve your community, please contact the Chairman of the National Capital ARES Council, Ken Williams - N3AQG or your local Emergency Coordinator. (See page 21 of this issue of Auto-Call.)

The National Capital ARES Council (NCAC) is an organization of ARES officials in the metropolitan Washington, D.C. area. The Council provides a forum for sharing resources and information among the participating ARES jurisdictions of Alexandria, Arlington County, District of Columbia, Fairfax County, Loudoun County, Military District of Washington, Montgomery County, Northern and Southern Prince Georges County and Prince William County.

The Council meets once each month at the D.C. Chapter House of the American Red Cross, 2025 E Street, N.W., Washington, D.C. All interested persons are welcome. Meetings take place on the third Monday of the month at 7:15 p.m. The Council also conducts a weekly net on Sunday evenings on the 146.91 MHz repeater at 9 p.m. or on the 146.79 MHz repeater as an alternate.

Correspondence may be addressed to:

National Capital ARES Council

P.O. Box 6520, Silver Spring, Maryland 20906-0520

For additional information, contact Hank Black, N3ESR at (301) 340-8595.

---PUBLIC SERVICE CALENDAR ---

- | | |
|---------|---|
| 2/26/89 | EC Conference, Vienna WINTERFEST TM , check for time and place |
| 3/20/89 | National Capital ARES (NCARES) Council Meeting
World Weather Building, Camp Springs, MD; 7:30 p.m. |
| 4/9/89 | National Multiple Sclerosis Super Cities Walk, C & O Canal/Glen Echo
Contact Ken N3AQG (202) 363-8364 or Hank N3ESR (301) 340-8595 |
| 4/17/89 | NCARES Council Meeting; 7:15 p.m.
D.C. Red Cross Chapter House, 2021 E Street, N.W. |
| 5/15/89 | NCARES Council Meeting; 7:15 p.m.
D.C. Red Cross Chapter House, 2021 E Street, N.W. |

Public Service Report - Continued

National Capital Area Amateur Radio Emergency Service:

Va. Section EC: Earl Bishop, N4EXQ, (804)270-7564
National Capitol District EC: Harry Jones, N4CWP (703)521-4624
Military District of Washington EC: Frank Hartnett, KA8PUU (703)642-5516
Fairfax Co. EC: Joe Peters, WB4WZZ (703)241-0078
Vienna Asst. EC: VACANT
Mt. Vernon Asst. EC: Steve Schneider, WB4EEA (703)683-6570
Alexandria EC: Chuck Rexroad, N4HCP (703)971-0348
Arlington Co. EC: Craig Church, N4EFJ (703)979-8325
Prince William Co. EC: Harry Vorhauer, W4PVA (703)368-6050
Loudoun Co. EC: Bill Roemer, K3CUU (703)395-4905
Virginia District #1 DEC: Walt Quitter, NC4B (703)869-5241
Frederick Co. EC: Steve Czaikowski, WB4ZTR (703)869-3674
Warren Co. EC: Tom Strickler, K4JNA (703)635-3035

.....

Maryland-DC SEC: Al Taylor, KN3U (301)251-9464
Maryland-DC ASEC: Ross Merlin, WA2WDT (301)983-2842
Md. State RACES Officer: Al Nollmeyer, W3YVQ (301)252-9073
Md. State RACES Officer: John Rupprecht, K3NOQ
Dist. of Columbia EC: Ken Williams, N3AQG (202) 363-8364
Allegany County EC: Gay Rembold, W3DFW (301)724-0674
Anne Arundel Co. EC: Nancy Alley, KD3KJ (301) 766-0129
Baltimore City/Co. EC: Cam Whetstone, WA3YOH (301)486-2609
Calvert Co. EC: Woody Schwartz, W3ZNW (301)535-1281
Caroline Co. EC: VACANT
Carroll Co. EC: John Culleton, KO3Z (301)795-1159
Cecil Co. EC: Bill Doss, N3AJJ (301)287-5897
Charles Co. EC: VACANT
Dorchester Co. EC: VACANT
Frederick Co. EC: Rick Ogden, N3RO (301)845-2670
Garrett Co. EC: VACANT
Harford Co. EC: VACANT
Howard Co. EC: Mike Carr, WA1QAA (301)799-0403
Kent Co. EC: Jim Bortner, WA3UJE (301)778-0589
Montgomery Co. EC: Hank Black, N3ESR (301)340-8595
N. Prince Georges Co. EC: Gary Mentro, WB3JRW (301)927-4094
S. Prince Georges Co. EC: George Dewees, KA3KIF (301)292-1241
Queen Anne Co. EC: Walter Brink, W3WPY (301)643-2933
Somerset Co. EC: VACANT
St. Mary's Co. EC: VACANT
Talbot Co. EC: VACANT
Washington Co. EC: Charlie Anderson NF3X (301)733-3061
Wicomico Co. EC: VACANT
Worcester Co. EC: Leo Kilgore KX3J (301)641-4291

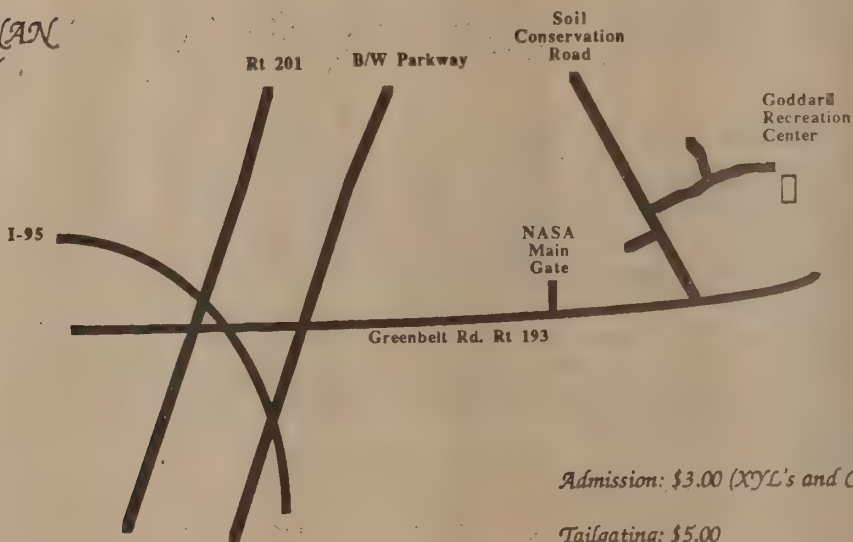
Amateur Radio and Computer Swap Meet

sponsored by:

*The Goddard Amateur Radio Club
and*

The Washington Adventist Amateur Radio Association

*Talk-in: WA3NAN
146.235/146.835
146.52*



*For more info:
GARC, Box 86, Greenbelt, Md, 20770
or leave a message on 286-6673*

Admission: \$3.00 (XYL's and Children Free)

Tailgating: \$5.00

Indoor Table: \$10. (Limited Number)

*Sunday, April 16, 1989
9am to 4 pm
at the NASA Goddard Recreation Center*

Food and Refreshments available

SRAM--004

Amateur Radio in the USSR

Dexter Anderson, W4KM

MURPHY PRESENT BUT IN BACKGROUND DURING JOINT DXPEDITION BY SOVIET AND FINNISH HAMS

This month let's look at Soviet Amateur press coverage of an unusual DXpedition by Amateurs from the USSR and Finland.

Boris Stepanov - UW3AX informed readers of his numbered "On the Amateur Bands" column (NLD-1306 of 6 July 1988) of a planned operation by a joint Soviet-Finnish team from Malyy Vysotskiy island (let's adopt the ARRL practice of calling it "M-V"). The column went on to say that the DXpedition, organized by the editors of the Soviet magazine "Radio" and the Finnish magazine "Radioamatori," would take place from 8 through 11 July 1988 and would use the callsign 4J1FS (Finnish-Soviet). Two QSL addresses were given: Hams from U, Y2, SP, OK, LZ, HA, YO and YU were to QSL to UW3AX via the Central Radio Club or to P.O. Box 679, 107207 MOSCOW; those from other countries were to QSL to OH2NB.

A geographic gazetteer I came across listed M-V's coordinates as 60° 38' N / 028° 35' E, placing it in the bay at the head of which is the Soviet, formerly Finish, city of Vyborg.

NLD-1309, 20 July 1988, reported that in 96 hours of operation, the 4J1FS expedition made 14,800 contacts with shortwavers from over 100 countries.

An article "On the Air - 4J1FS" about the DXpedition, written by UW3AX, appeared in RADIO magazine for December 1988. A condensed version appears below. Comments in brackets [] are my own. As we shall soon see, Murphy accompanied the Finnish team on its way to M-V.

As long as Amateur radio has existed, shortwavers have wanted to contact some new country. It's no accident that the DXCC certificate (in the USA) and the R-150-S diploma (in the USSR) are among the most popular with certificate hunters.

Over a quarter century ago the USSR and Finland signed an agreement on the Saymen [Saimaa?] Canal, which passes through the territory of both countries. The Soviet part of the canal was leased to Finland for fifty years, together with the small (about 1.5 km long) island of Malyy Vysotskiy, in the Gulf of Finland not far from Vyborg; the island is used by the Finnish canal administration for sea trans-shipments.

The status of Malyy Vysotskiy island is such that it can be regarded as a separate "territory" for DXCC and R-150-S purposes, and the question arose naturally of Amateur Radio operation. Initial attempts to organize an expedition were made back in the early 1970s by Enn Lokhk, UR2AR, and Martti Laine, OH2BH. Later attempts by Soviet and Finnish shortwavers, alas, proved unsuccessful.

In May 1988 a letter came to the editors of *Radio* from their Finnish colleagues, containing suggestions for a number of events in connection with the 40th anniversary of the Agreement on Friendship, Cooperation, and Mutual Assistance between Finland and the USSR. Among the events proposed by the editors of "Radioamatori" was a radioexpedition to Malyy Vysotskiy island. Not much time at all was left before the date of the

SRAM--004 (Continued)

expedition, and it seemed (based on previous experience) unlikely that all matters could be resolved. But we decided to try anyway. Things worked out only because of the positive attitude of the State Telecommunication Inspectorate, the Soviet canal administration, and other organizations.

Pertti Turunen, OH2RF; John Ahlbom, OH5NZ; and Martti Laine, OH2BH; participated on the Finnish side. Pertti is the editor of the magazine "*Radioamatori*" and runs the DX column. He's a "contester" who has participated in several DX expeditions. John is an active shortwaver and represents the League of Finnish Radioamateurs (SRAL) in the Shortwave Committee of Region 1 of the International Amateur Radio Union. Martti hardly needs an introduction; anyone who's been on the air knows him from his various DX expeditions to the most exotic sports on earth.

The Soviet participants in the expedition were Enn Lokhk, UR2AR; Gennadiy Shul'gin, UZ3AU; and the writer [Boris Grigor'yevich Stepanov, UW3AX, Deputy Editor-in-Chief of the magazine *Radio* and editor of the numbered "*On the Amateur Bands*" column in the newspaper *SOVETSKIY PATRIOT*]. We gathered in Vyborg the morning of 7 July. With local assistance, we got a pass to the island and by about 1300 MSK were on the island. The [Soviet] border guards who greeted us reported that the launch "*Sirkka*" carrying our Finnish colleagues had left for the island and would arrive within half an hour.

Well okay, now we could sun ourselves a bit (the weather throughout was great) and relax. The tribulations we lived through getting ready for the expedition were, frankly, more than enough. But the blissful state induced by our break didn't last long. One hour, then two, went by and no Finnish launch. The border guards were perplexed and we couldn't sit still either. Finally it came into sight, moving slowly and leaning noticeably to one side. About a kilometer off shore it stopped, and from anxious signs from those on board we understood that the situation was serious. The border guards towed the "*Sirkka*" to shore with their own launch.

Later, Martti -- who's traveled over almost half the world and has been in places where in case of some catastrophe no help would be available -- admitted to me that only after several hours on the air did he realize that they had been on the verge of a tragedy. Perhaps there would not have been any loss of life, but the launch could have sunk. A leak had developed and the water couldn't be bailed out fast enough.

But these emotions were vented only on the following day. There only remained a short time until the beginning of operations, and after unloading the launch we started installing the antennas, under the command of UZ3AU. Too bad there wasn't someone to photograph the installation of the antennas -- a photo of Gennadiy holding a 4-element KT-34 beam with one hand while climbing up the mast would doubtless have embellished this report of the expedition.

After the antennas were installed (aside from the beam, 40 and 80-meter dipoles were hung from birch trees) we looked nervously at our watches. The operating position was equipped with a TS-940 transceiver with a

SRAM--004 (Continued)

linear amplifier. We switched on our three-kilowatt "Honda" generator. Everything seemed ready, with a couple of minutes remaining before the beginning of operation (0000 MSK 8 July). At that moment it came to us that everyone was ravenously hungry - we had only had breakfast, some 15 hours earlier. Naturally, we put off "dinner-supper" for about an hour more.

I [UW3AX] made the first QSO on c.w. with SM3EVR. Then each of the other participants made symbolic QSOs. We then decided that the initial pile-up would be handled by the most experienced operator among us -- Martti. Then we finally fortified ourselves with some food.

The four days of uninterrupted operation flew by without our noticing them. Here are the results in a nutshell: In 96 hours 14,835 contacts were made with over 100 countries of the world, including 5830 with the USA, 5820 with Europe, 2172 with Japan, and 1013 with other countries and continents. Operation was basically on 14 MHz.

It's impossible to tell about the four-day operation in a magazine article. The average rate -- about 150 contacts per hour (on SSB this went as high as 200 during specific periods) -- speaks for itself. The operating style accepted for such expeditions -- listening for signals from calling stations in a wide bandwidth (up 20 to 30 kHz) each side of the transmitting frequency (in order to reduce QRM from calling stations) -- is very democratic. A QRP operator has a realistic chance to contact the expedition even at the beginning of the operation, provided he's fortunate enough to choose a frequency free of QRM.

We should state straight away that many of our shortwavers were unprepared (including from a purely technical point of view) for such an operating style. The majority of stations had a maximum frequency spread between received and transmit of only a few kiloHertz. This is why from time to time we switched over to a minimum offset of 2 to 3 kHz, giving rise to a non-optimal mode of operation. During the second half of the last day (11 July) we operated on 3.5 and 7 MHz especially to provide the possibility of a contact to shortwavers (basically in the USSR and Finland) located in the "dead" zone for the 14 and 21 MHz bands.

Here also the situation was not very pleasing -- it turned out that many of our radio Amateurs (mostly licensees of 3rd- and 2nd-category stations) don't know how to operate split. This is why it was necessary from time to time to resort to the inefficient alternative of receiving on our working frequency. The level at which our shortwavers are trained for serious DX operation should be a subject for separate discussion. And not only deliberations but publications introducing techniques for conducting DX contacts, contacts with expeditions, etc.

The four days were holidays for the Soviet and Finnish participants, and apparently for shortwavers in many countries, judging by the letters and by the notes on QSL cards we received.

On 30 September the Federation of Radio Sport of the USSR decided to include the island of Malyy Vysotskiy as a separate territory in the R-150-S diploma [Worked 150 Countries certificate] listing. [Note that since the article was written, the ARRL accorded "M-V" DXCC status.]

(Continued)

ANNOUNCING! **THE 1989** **GREATER BALTIMORE** **HAMBOREE AND** **COMPUTERFEST**



SATURDAY, APRIL 1 AND SUNDAY, APRIL 2
MARYLAND STATE FAIRGROUNDS
TIMONIUM, MARYLAND

GATES OPEN AT 8 AM BOTH DAYS

**GIANT AMATEUR RADIO, COMPUTER AND
ELECTRONIC FLEA MARKET, SHOW AND SALE**

FEATURING:

Giant Indoor and Outdoor Show and Sale Area
Over 400 Indoor Booths-3 Buildings-Over 2 Acres Indoors
Entire Building for Manufacturers and Dealers Display
Saturday 10 AM-FCC Amateur Radio License Exams
Sunday 10AM-Phil Karn, KA9Q-Packet Radio Seminar and 56 Kb/s RF Modem Demonstration

AMATEUR RADIO

**Transmitters • Receivers • Tuners • Antennas • Packet Radio • Software • Parts and
Components • Test Equipment • Scopes and Meters • Electronic Surplus Items
of all kinds new and used.**

COMPUTERS

**PC's and Clones, Commodore, Apple and others, plus:
Software • Hardware • Supplies • Accessories • Disks and Drives
Monitors • Printers • Paper • Ribbons • Parts • Kits • Chips • Modems**

Many Show Special Bargains

Save 10% to 90% • Acres of Free Parking • Good Food
OUR 18th YEAR!

ADMISSION \$5.00 FOR BOTH DAYS

Show is open 8 a.m.-5 p.m. on Saturday & 8 a.m.- 4 p.m. on Sunday

SHOW WILL BE HELD IN ANY WEATHER!

Sponsored by: Baltimore Amateur Radio Club, Inc.

P.O. Box 95, Timonium, MD 21093

Call (301)-HAM-FEST for a 24 hour information system.



ARRL Approved



**Talk-In
146.07-67**

SRAM--004 (Continued)

An interview with General-Colonel Nikolay Nikiforovich Kotlovtshev, Chairman of the DOSAAF Central Committee [DOSAAF is the organization that sponsors Amateur Radio in the USSR] appeared in *SOVETSKIY PATRIOT* on 8 January 1989. General Kotlovtshev had recently visited the areas affected by the earthquake in Armenia. The introduction to the article contains the statement that the earthquake occurred 7 December 1988 at 1141 hours local time. If my recollection is correct that local Armenian time is one hour ahead of Moscow time, this would place the initial tremor at 0741 Universal Time, 7 December 1988.

The following questions and answers are excerpted from the interview:

Q: How many DOSAAF employees perished in the earthquake?

A: Six

Q: Whom would you single out for praiseworthy conduct?

A:... A group of radio amateurs from various parts of the country was attached to the Kirovakan City DOSAAF Committee. The disaster disrupted telephone, telegraph, and commercial power lines, and restoring them took significant time. You can imagine how useful our radiosportsmen were in this situation. ... The article contains the statement that K. Karapetyan, Chief of the collective Amateur Radio station of the Yerevan Combined Technical School, helped the crew of a private "Boeing 707" aircraft flying in from Beirut to communicate with the airport and to land successfully.

More on Armenian Earthquake Disaster Communications

A TASS dispatch headlined "Assistance to 'Search'" reported on an American donation of equipment to the earthquake disaster area. The dispatch came from Yerevan (capital of the Armenian SSR) and was published in the Soviet Newspaper *SOVETSKAYA ROSSIYA* of 19 January 1989.

Tens of thousands of people are still searching for one another following the terrible earthquake last December 7th. A packet communication system installed yesterday in the "Search" ["Poisk"] Information-Computing Center of the Armenian Communist Youth League will help them do this more rapidly and efficiently. The equipment was sent as a donation via an American amateur radio society.

"Search" ["Poisk"] is operating with a heavy load -- almost 5 thousand people apply daily in hopes of finding their loved ones.

NLD-1358, 15 January 1989, announced that the frequencies 14,175 kHz and 3,645 kHz continued to be used by radioamateur net providing communications with areas of Armenia that suffered from the earthquake and cautioned amateurs to refrain from operating on or near these frequencies.

See page 28 for QSL Tidbits

Any comments on the column would be appreciated.

Write or phone Dex Anderson - W4KM

150 11th Street S.E.

Washington, DC 20003

(202) 485-7597 (Days)

Or contact AUTO-CALL

SRAM--004 (Continued)

QSL Tidbits

EK8HWT and EK8IZN -- possible QSL address:
P.O. Box 96
630034 NOVOSIBIRSK-34
NLD-1351, 18 December 1988

YL3ZG -- possible QSL address:
c/o S. Gokhberg, UQ2MU
P.O. Box 164
226098 RIGA-CENTER
Latvia
NLD-1355, 4 January 1989

YL2VZ and UQ0A (UQ1GZW):
c/o Yu. Petersons, UQ2GM
P.O. Box 58
228650 VALKA
Latvia
NLD-1355, 4 January 1989

OH0/UR2QD, 21 - 22 December 1988:
P.O. Box 2259
200035 TALLINN
Estonia
NLD-1361, 25 January 1989

UZ9MWJ, UJ5KR/UZ9MWJ, or RJ1R, January - February 1989:
P.O. Box 1353
644093 OMSK
NLD-1361, 25 January 1989

UB5JF/UF, 1 through 18 February 1989:
P.O. Box 162
333000 SIMFEROPOL'
NLD-1361, 25 January 1989

UB1RR/UB8J, November 1988, and for
UB5JRR/RB8R January 1989:
P.O. Box 1
333036 SIMFEROPOL'
NLD-1361, 25 January 1989

Vietnam Operation

NLD-1360, 22 January 1989, citing A. Lebedev, UL7PCZ, as its source, reported that the RL8PYL operators' group (UL7PAE, UL7PCZ, and RL8PY) and RL7GK would be active from Vietnam using the callsigns 3W0A (for CW and SSB) and 3W1A (for RTTY) for 20 days beginning 31 January. The following QSL address was given: P.O. Box 49
472300 TEMIRTAU
(Karagandinskaya Oblast')

*Please let us know if the QSL Tidbits are of value to you.
We will save the space if they are not useful.*



DEFENSE INTELLIGENCE AGENCY

WASHINGTON, D.C. 20340.

17 JAN 1989

U-1421/VP-PW

Editor, Auto-Call
Box 7612
Falls Church, VA 22046

Dear Sir:

I am the Chief of the Defense Intelligence Agency Special Office for Prisoners of War and Missing in Action; I am also K4FPT. My office is responsible for collecting and analyzing information that possibly relates to Americans who remain unaccounted for in Southeast Asia. While some of the information we collect is generally accurate and some is helpful to U.S. Government efforts to account for our missing men, from time to time we encounter bogus information. Sadly, bogus information often receives greater attention than valid information.

I am writing this letter to alert the U.S. amateur radio community to an incident that occurred in October 1988 and to describe the outcome of that incident.

On 4 October, two U.S. amateurs -- in North Carolina and in Ohio -- monitored a 10-meter CW transmission. The sender claimed to be one of "700 U.S. Marines" being held prisoner near Hanoi and used the name "John Gefton." This transmission included several SOS calls and pleaded for anyone receiving the transmission to notify U.S. officials. The amateur in North Carolina tape-recorded a portion of the transmission. Both U.S. amateurs noted that the transmission had a very rough, chirpy note.

On 6 October, the North Carolina amateur monitored what he believed to be the same transmitter on almost the same frequency. At that time, the station was signing a Swiss call sign, was in contact with Canadian and U.S. stations and indicated that he was located near Geneva. In checking the call book, the U.S. amateur noted that no such call sign appeared in the Swiss listings. He notified the FCC, who monitored the transmissions and conducted direction finding. Also, the North Carolina amateur tape-recorded most of the 6 October transmission.

Analysts in my office interviewed both of the U.S. amateurs and spoke with the FCC Monitoring and Enforcement Division. In the first place, there are not "700 Marines" still missing in Southeast Asia. Fewer than 300 Marines are unaccounted for. Secondly, there is no one missing with the name "John Gefton" or any reasonable variation thereof.

Most important, however, is the technical evidence analyzed by the FCC. In comparing the 4 and 6 October tape recordings, the FCC concluded that both signals originated from the same transmitter. The FCC DF'ing located the transmitter in Europe; lines of bearing encompass Geneva. Furthermore, the lines of bearing, if extended around the globe, do not come close to Vietnam.

March 1989

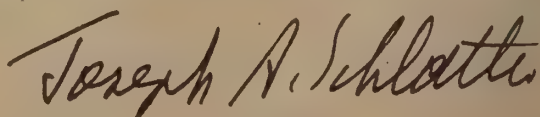
Thus, based on both internal and external evidence, we have concluded that the 4 October "distress" signal was a hoax, probably originating from a bootlegger in Switzerland.

I feel it is important that this information be disseminated among the U.S. amateur community for two reasons. First, I understand that some details of this caper were printed in one or more amateur newsletters, and I want to ensure that the outcome receives the same coverage as the initial report. Secondly, I want to advise U.S. amateurs of what to do if any such incident comes to their attention in the future.

If anyone should monitor any transmissions alleging knowledge of, or in any way connected with, Americans missing in Southeast Asia, please do the following:

- a. Tape record the transmission.
- b. Note frequency, time, date, type signal.
- c. Obtain a beam heading.
- d. Copy if it is a CW signal, gist if it is voice.
- e. If possible, notify nearest FCC field station and ask them to DF the signal.
- f. Notify me: Colonel Joe Schlatter, DIA Special Office for PW/MIA or one of the analysts in my office. You should telephone collect, (202) 694-4708 or (202) 695-0501. Follow up by writing: DIA, Special Office for PW/MIA, Room 2E230, The Pentagon, Washington, DC 20340-5390.
- g. Monitor on or near the same frequency for several days.

The U.S. Government is exerting every effort to obtain the fullest possible accounting for our men missing in Indochina. My office has 39 full-time intelligence professionals dedicated solely to this issue. We are assisted by teams in Southeast Asia collecting information and by the entire spectrum of U.S. intelligence and diplomatic activities. General John W. Vessey, former Chairman of the Joint Chiefs of Staff, serves as the President's personal POW/MIA Emissary to Vietnam and continues to have close contact with Vietnamese officials, urging them to cooperate in reaching the accounting we seek. The support for this issue from Congress, veterans, the general public and -- most importantly, the families of the missing men -- is superb. Sadly, answers to the fates of these men are not yet available to the U.S. Government. The answers lie with the Indochinese communist governments. Their cooperation recently has improved and the uncertainty of over 100 families has been ended in the past few years.



JOSEPH A. SCHLATTER
Colonel, USA
Chief, Special Office for Prisoners
of War and Missing in Action

Congratulations to:

Stuart Meyer, W2GHH on being awarded the prestigious Fred M. Link Award by the Radio Club of America. The award was given in recognition of Stu's contributions to the development of land mobile radio communications. (Proceedings of the Radio Club of America)

J. William Miller, K4MM on being elected a Fellow in the Radio Club of American for contrtributions in the fields of microwave, tropospheric scatter and ionospheric scatter propagation and in HF, VHF, and UHF communications.

(Proceedings of the Radio Club of America)

Clark Berry - K4GJB on receiving a plaque recognizing 50 years of membership in the ARRL. See Arlington Radio Club column on page 43.

Hugh Turnbull, W3ABC on being elected to the ARRL Executive Committee. (ARRL Letter)

Kay Craige, KC3LM on being named "Amateur of the Year" for 1988 in the Atlantic Divison of ARRL. Dr. Craigie is the Section Manager for Eastern Pennsylvania.

Fred Laun, K3ZO, USIA foreign media analyst, on receiving the Agency's Career Achievement Award. Fred, well known in the Washington area and to Amateurs throughout the world, retired recently after a distinguished 25-year career. Much of his service was on the front lines of U.S. public diplomacy in Santo Domingo, Vietnam Argentina, Colombia and, most recently, Nicaragua.

Walter La Fleur, W3EVD on his promotion as Director of Engineering for the Voice of America.

William Willmot, K4TF on being elected the new president of the international Society of Wireless Pioneers. The SOWP is an organization of current and former professional radio (wireless) telegraphers. Bill was well known in the Washington area while working here for NASA. He is now working at the U.S. Air Force's Eastern Space and Missile Center at Cape Canaveral, FL.

Miriam Teitel, KA3UBJ on getting her Novice license at the age 10. Miriam's picture was shown in the January column of the Rock Creek ARA as a "Future ham." Now she's done it! Miriam is a 5th grade student and the daughter of proud W3IDT.

American Indian Amateur Radio Operators Organization Now Being Formed

Now forming is the "Little Big Horn Amateur Radio organization" (LBH), a group of American Indian Amateur Radio Operators and hams of other ethnic backgrounds who are banding together to build bridges of understanding, friendship and respect between all Native Americans and other people via Amateur Radio. Membership is not limited to Native Americans.

Currently, the LBH includes members from the Cherokee, Crow, Djibway, Oneida, Sioux and Tlingit tribes plus a sizeable number of non-Indian hams from the Atlantic to the Pacific oceans. Two CW nets are conducted weekly for the purpose of exchanging news and interests. For more information about the nets and the LBH organization, contact M. McDaniel -W6FGE, 940 Temple Street, San Diego, CA 92106 (619) 223-3912.

(News Release from the Little Big Horn Amateur Radio Organization)



AMATEUR RADIO NEWS RELEASE

For Immediate Release

THE FOUNDATION FOR AMATEUR RADIO, INC., a non-profit organization with headquarters in Washington, D.C., plans to award thirty-two (32) scholarships for the academic year 1989--1990 to assist licensed Radio Amateurs. The Foundation, composed of fifty local area Amateur Radio Clubs, fully funds four of these scholarships with the income from grants and its annual Hamfest. It administers, without cost to the donors, seven (7) scholarships for the Quarter Century Wireless Association, five (5) for the Baltimore, (MD) Amateur Radio Club, three (3) for the Radio Club of America, and two (2) each for the Dade (FL) Radio Club, the Amateur Radio News Service, the 10-10 International Net, and the West Allis Radio Amateur Club of Milwaukee. It also administers one (1) each for the Richard G. Chichester Memorial, the Young Ladies' Radio League, the Columbia (MD) Amateur Radio Association, the Frederick (MD) Amateur Radio Club and the Vienna (VA) Wireless Society.

Licensed Radio Amateurs may compete for these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled in or have been accepted for enrollment at an accredited university, college or technical school. Some of the scholarships require the holding of at least an FCC GENERAL Class license or equivalent. The awards range from \$500 to \$2000 with preference given in some cases to residents of specified geographical areas or the pursuit of certain study programs.

Additional information and an application form can be requested by letter or QSL card, postmarked prior to May 31, 1989 from:

FAR Scholarships
6903 Rhode Island Avenue
College Park, MD 20740

The Foundation for Amateur Radio, incorporated in the District of Columbia, is an exempt organization under Section 501(c)(3) of the Internal Revenue Code of 1954. It is devoted exclusively to promoting the interests of Amateur Radio and those scientific, literary and educational pursuits that advance the purpose of the Amateur Radio Service.

COMING SOON!

THE

ARC

AMATEUR RADIO CENTER

Sterling, Virginia

A unique amateur radio store with a large selection of reconditioned HAM SWL equipment & accessories.

A Complete Service Center

- Quick Turn Around
- Low Rates
- A Large Consignment Inventory
- New Equipment Sales
- See Our Vintage & Nostalgia Section

Watch for more information at

WINTERFEST

ARC

AMATEUR RADIO CENTER

"Where Every Day Is A HamFest!"

Convenient Access

Located near Rts. 7 & 28
and Dulles Toll Road
Plenty of Parking

Silent Keys

Andrew Herman ("Andy") Abraham, W3JZY of Smithsburg, Maryland, became a Silent Key December 14. He was 85 years old and had been an Amateur Radio operator since 1923. Andy was born in Kouts, Indiana and served with the U.S. Marine Corps, the U.S. Coast Guard and was assigned to the Coast Guard Cutter *Itaska* in Alaska. During WW II he was assigned to the *U.S. Hunter Liggett* troop transport ship and served in Curtis Bay in Baltimore and Jersey City, NJ. He retired from the Coast Guard in 1947 as a Lieutenant Commander with 23 years of service. He was a member of Libanus Lodge #154 F&A Masons, U.S. Coast Guard Chief Warrant Officers Association, Navy-Marine Corps MARS, Old Timers' Club, Antietam Radio Assn. of Hagerstown, MD; ARRL, QCWA and SOWP. He is survived by his wife, Mildred and one son, Robert of Smithsburg.
(Reported by Lewis Danes, W3FZT)

Frank Palik, W3OAW Retired Bureau chief of FCC, died January 22 of cardiopulmonary failure. He was 76. Frank served with FCC from 1946 until his retirement in 1975. As Facilities Bureau Chief he wrote regulations for satellite, telephone, telegraph and air-to-ground communications. He served in the Army Corps of Engineers in the SW Pacific during WW-II. He had many hobbies and activities and was also an inventor who held several patents. He is survived by his wife, Persis (Pat) of Kensington, two daughters and two sons.
(Reported by Hugh Turnbull, W3ABC)

F. Robert Berg, W0OSQ, died of cancer on February 3. Mr. Berg was a charter member of the Department of State Amateur Radio Club. He retired in 1970 and moved to Dutzow, Missouri. He was 74.
(Reported by John Swafford, W4HU)

Bill Blair - W3MAH became a Silent Key on January 13th. A long-time resident of Pasadena, MD, Bill was 87. He retired in 1964 after working 35 years in Baltimore's Camden Station as a train dispatcher. He was the founder of the B&O ARC. In recent years, ill health prevented Bill from taking part in club activities, thus he was not known by the newer members.
(Reported by Anne Arundel ARC)

John Lantz, NC4C of Falls Church, Va. No details were available at press time.
(Reported by Ernie Seering, WA4CGY)

Foundation Meetings

The Foundation for Amateur Radio meets at 8:00 p.m. on the second Wednesday of each month. Visitors are always welcome. Meetings usually alternate between Maryland and Virginia. The March meeting will be held at the Columbia Union College Science Building, in Tacoma Park, Maryland on March 8. Talk-in on 147.18.

The Foundation is a 501-C(3) non-profit organization made up of 50 clubs in the greater Washington area. Activities include sponsoring the Gaithersburg Hamfest, the FAR Scholarship program, Widow's Assistant program, and the Auto-Call Magazine. Membership is open to all Amateur Radio organizations in the local area. For further information write to Corresponding Secretary Irene Akers, W3RXJ, 2443 St. Clair Drive, Temple Hills, MD 20748 Phone (301) 423-7138, or Recording Secretary Mary Morris, N4TCI at (703) 971-3905.

ANNOUNCING THE OPENING OF THE AREA'S LARGEST SATELLITE SHOWROOM!

CURRENTLY STOCKING A FULL LINE OF:


Channel Master



WINEGARD
SATELLITE SYSTEMS 

VIDEOCIPHER II



California  Amplifier

GENERAL
INSTRUMENT

ECHOSTAR 



HTS
EXCELLENCE IN DESIGN

Pro Mount



Parabolics East, Inc.

Paraclipse
HIGH PERFORMANCE
SATELLITE TELEVISION SYSTEMS

DRAKE

Call for product
information
and current
prices

INFOCIPHER
Most products
available for
immediate
pick up

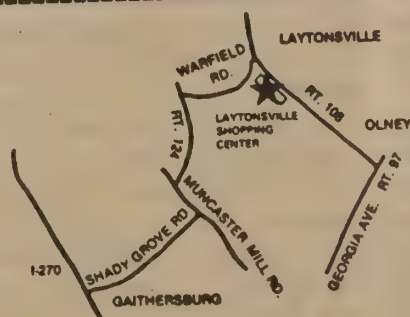


MOST MAJOR CREDIT CARDS ACCEPTED

**COLLIER SATELLITE
TELEVISION SYSTEMS**

6844 OLNEY LAYTONSVILLE ROAD (RT.108)
LAYTONS VILLAGE SHOPPING CENTER
LAYTONSVILLE, MARYLAND 20879

1-800-242-TVRO 1-301-921-6300



ASK FOR OUR AMATEUR RADIO DISCOUNT

Have Bug - Will Travel

PART II

Howard Johnson, W4IIG

In the last article we (you & I, that is) were last seen clambering up the Jacob's Ladder and getting settled-in aboard the Military Sealift Command tanker USNS SEALIFT MEDITERRANEAN/NMHT. Joining a vessel for the first time, be it a thirty year old and worn out hulk, resurrected for yet another "final" voyage, or a spankin'-new containership, one usually requires a day or so to get into the scheme of things. The "Med" was no different, and substantiated the old nautical phrase "Different ships, different long splices".

So, before entering the Radio Shack, which in the very early days was literally a wooden shack erected on an upper deck in the vicinity of the bridge - since space for the equipment just did not exist elsewhere on board, let us take a quick gander at the vessel itself. She is approximately 600 feet long, with extreme width (beam) of 84 feet, and draws approximately 34 feet of water when loaded. The overall height from waterline (LWL) to the top of the 10cm radar antenna is exactly 111 feet. She is a "Tank-Ship" colloquially known as a "Tanker", and carries approximately 200,000 Barrels of refined petroleum product(s). To convert this quantity into gallons, merely multiply 200K times 42 (which is the internationally recognized "Barrel" quantity, for liquids. As is the norm these days, the "house" - that is, the structure housing the entire crew, the upper portion of the machinery spaces and the navigational spaces (bridge, chartroom, master's Sea Cabin, etc) - is located aft, just slightly forward of the after-most part of the ship (the round-end, for the benefit of any non-nautical reader.

Now, with an inkling of the "nature of the beast", let us proceed upward from the Main Deck to the radioroom - eight floors in shoreside-parlance. "Elevator" is a word the owners, designers, builders are apparently not aware of... Come to think of it, that possibly explains why there are relatively few "fat-sparks"! On this particular class of vessel, the shack is located one deck below the bridge, and still contains a relic from the past in the form of a "Voice-Tube" to the bridge - to be used in the unlikely event of a complete electrical failure. The room itself is approximately 16 by 30 feet, including a locker for the emergency battery bank. Primary communications mode is via commercial satellite, utilizing one of three geo-stationary birds, Atlantic, Pacific and Indian Ocean. Secondary mode is SITOR with MF/HF CW available if all else fails.

In the satellite mode, message traffic is handled machine to machine, that is in direct real-time link from shipboard Model 42 Teletype printer to the called party's machine. The old system of sending a message to a Shore Station for manual relay and delivery is long gone. Voice is via direct-dial to the called party and requires only a second or so longer to accomplish than any call, local or long distance, ashore. Data transmission is also available through the INMARSAT system, however on the "Med" this mode was not yet implemented - although there is an IBM-PC/XT aboard. Let us reflect for a moment on the unique problems associated with shipboard SATCOM... In addition to solving the relatively simple trigonometrical problem of direction & elevation angle from ship to satellite, one must take into account the ship's heading, the side-to-side rolling, the fore-and-aft pitching and the "Scend" or vertical motion caused by sea and swell. Fortunately, the computer handles this chore, along with some hardware. First, there is a "Stable platform" upon which the parabolic antenna system is mounted. Roll and Pitch is eliminated from the equation by means of gyros, keeping the platform flat in relation to the earth's surface. I leave it to you, dear reader, to cogitate on the problem of "scend" - is it or is it not a major problem? Of course, inputting the current ship's direction of travel in terms of "True Heading"

(Continued on page xx)

Have Bug - Will Travel - Continued

is required only on initial setup, as the antenna will be locked on the bird electronically after acquisition.

SITOR on this vessel is a breeze... The Harris 1kW rig is capable of completely automatic control (Mode, Frequency selection, Tune-up, Time of calling and/or listening, etc.) from the word-processor computer dedicated to this service. As is the case with the Satellite system, direct real-time traffic handling is accomplished, with the Shore Station acting as a transparent relay. One merely "punches up" the outgoing traffic, enters the desired station's telex number, and strikes to "go-button". However, on this vessel the above mentioned "automatic control" was not implemented, so one must also accomplish the tuneup manually.

As for the manual radiotelegraph gear, it is in accordance with international standards. A 1kW HF rig, a 500W MF rig (500, 512, 480, 468, 454, 444, 425 and 410 kHz), and a 12-volt battery operated 40W MCW MF rig. By the way, for the amusement and edification of any old-timer reading this, there is a regenerative receiver aboard, although of solid state nature! It is, of course, relatively useless on coast-wise voyages due to BC band heterodyne interference. Hmmm, lessee now ... is that QRM or QRN?? A "Speaker Watch" is kept on 500kHz during normal watch-hours, and a conventional Autoalarm stands-in for one during off-watch hours. By the way, one who has never been awakened by that large and raucous AA-Bell sounding off in the middle of the night, has sorely missed one of the "pleasures" of going to sea as a brass pounder!

A 1kW SSB rig occupies one rack, for the infrequent HF voice contact. Fax is received via a microprocessor controlled receiver/printer, and WWV/JJY-type "time ticks" are sent to the bridge daily, although they have their own SATNAV gear plus two solidstate chronometers. Watch hours are (usually) 0800-1100, 1300-1600, 1800-2000 local shipboard time, plus additionally watchkeeping under routine and/or peculiar circumstances - more on that later.

Whilst we have been "surveying" the radioshack, cargo has been loaded and the vessel is now outbound from Singapore for Yokosuka Japan. Next month we will take a few typical voyages to ports-of-call in the China Sea, Japan, Okinawa, the Philippines and elsewhere. "Stay tuned"!

1989 QCWA Annual Banquet

April 8

Enclosed is \$ _____ for _____ reservations at \$20 each.

Name _____ Call _____

Guest's Name(s)/Call(s) _____

Address _____

City _____ State _____ Zip _____

Mail to: Jack Kelleher, W4ZC; 612 Ednor Road; Silver Spring, MD 20904

Group seating for _____ people. Names as follows:
(Minimum of ten)

Old Timers' Dinner

Sponsored by Washington, DC & Vic. Clark Chapters QCWA

For All Area Amateurs

8 APRIL, 1989

**OFFICERS' CLUB
Naval Medical Center
8901 Wisconsin Avenue, Bethesda, Maryland**

**Speaker
Leland Smith, W5KL
National President QCWA
Brigidere General USMC Ret.**

Make your reservations early
Table assignments are made in the order in which reservations are received
So early applications take the best seats

Club or group reservations will be available for tables of ten.
Select a spokesman for your group and let him order the reservations.

Deadline for advanced reservations is April 1

ADVANCED RESERVATIONS

\$20 - per person. Tickets at the door (without reservations) - **\$22**
This includes dinner, gratuity, tax and parking.

PICK UP YOUR TICKETS AT THE DOOR THE NIGHT OF THE DINNER

Tickets will be mailed only upon request and receipt of SASE

No refunds on "No Shows"

Individual orders and group spokesman make remittance payable to:
Vic Clark Chapter QCWA

CASH BAR OPENS AT 7:00 p.m.

DINNER IS AT 8:00 p.m.

For further information and reservations contact:

Jack Kelleher, W4ZC
612 Ednor Road
Silver Spring, MD 20904
Phone (301) 924-1605

Opportunities For Public Service-Minded Hams

Ken Williams, N3AQG
Chairman, National Capital ARES Council

The National Capital ARES Council (NCAC) is an organization of ARES officials in the metropolitan Washington, DC area. The NCAC strives to enhance the development of Amateur Radio emergency and public service communications in the region. The Council provides a forum for sharing resources and information among participating ARES jurisdictions.

Occasionally, someone comes up with a creative idea for a new project which is beyond the resources of the Council. These ideas tend to languish until some Ham says, "Hey! That sounds like something I'd be interested in doing".

But finding the right Ham to work on the right project is usually a hit-or-miss proposition. That's where this article comes in. We figure that most Auto-Call readers, like you, are active Hams. And we suspect that most of the active Hams in the area read Auto-Call.

So, we'd like to describe to you three nifty ideas which have been suggested to the Council. Look them over, and see if any of them strikes your fancy.

The Council believes all these ideas have merit. We'd like to see some folks make these things happen, for the benefit of Amateur Radio, and also for the fun of it.

PROJECT 1: A HAM RADIO HOT LINE

Wouldn't it be nice if there was a local phone number people could call to find out about Amateur Radio? With the advent of the automated telephone answering systems, a hot line could be a real asset to the Ham community. Here are some of the services it could provide:

- Non-Hams could call, hear a blurb about the hobby, and leave their name and number. Callers would be referred to a local club, which would return the call and invite the potential Ham to a club meeting.
- Public service-oriented Hams could call and listen to a listing of upcoming public service events. If interested, they could volunteer for one or more events on the spot.
- Upgrade-minded Hams could call and listen to a listing of upcoming training classes and exam sessions. If interested, they could leave a message reserving a slot at a session.
- Hams new to the area could call and obtain information about local clubs.
- Anyone could call and find out about upcoming hamfests and other special events.

The Council hopes that an individual or group will come forward to organize and sponsor such a project. You would need to come up with a detailed plan, cost estimates, and knowledgeable people to maintain the service. You would have to obtain financial support -- perhaps from FAR, one or more clubs, or even corporate donations.

PROJECT 2: HF EMERGENCY COMMUNICATIONS COORDINATOR

Most Emergency Coordinators have jurisdictions which are political entities: cities, counties, or towns. But this is not necessarily the case. The NCAC has recommended that an Emergency Coordinator for HF Operations be appointed.

(Continued)

Public Service Minded Hams - (Continued)

Here in the DC area, we are in the unique position of having a concentration of government and private relief agencies who are active in national and international emergencies. Local hams have largely met the needs of these agencies, but there have been lapses. For example:

- Agency or embassy officials, when confronted with a need for Amateur communications, typically don't know whom to call. These officials often rely on personal contacts, such as a friend of a friend who is known to be a Ham. When the officials finally track down an Amateur Operator, that Ham may not be aware of the network of resources which exists in the area, and the agency may end up with an arrangement which is less than optimal.
- Occasionally, local Hams representing different agencies have actually competed with each other for air time on an emergency channel. In such situations, both operators usually end up losing.
- At other times, traffic in-bound for the Washington area has been held up because no local station was monitoring the emergency channel when the traffic was listed. Even if a local station came on frequency, the distant operator might question the authenticity and reliability of that station, if the traffic was of a sensitive nature.

The Council believes that the situation can be improved, and that most of the HF operators involved in emergency communications would support efforts to improve coordination.

The duties of the HF Emergency Coordinator would be:

- to establish trusted relationships with served agencies and organizations in advance of need, and to integrate Amateur Radio into their emergency communications planning.
- to identify and solicit HF resources in the National Capital area: clubs, individuals, stations, and equipment which might be useful in a national or international emergency involving HF communications.
- to develop a plan for coordinated and effective use of the available resources.
- to coordinate HF emergency preparedness activities with other local ECs, and to publicize and coordinate local efforts with established HF emergency and public service organizations.

The ideal candidate for this position would be an experienced HF operator with a diplomatic nature who can command the trust and cooperation of high-level officials of national and international organizations. Broad Amateur Radio experience, including familiarity with packet radio, public service organization, and traffic handling, is desirable.

PROJECT 3: REGIONAL GUIDE TO EMERGENCY AUTOPATCHES

With the advent of the cellular telephone, many citizens now have the capability to make emergency calls from their vehicles. We Amateurs have long since established standard procedures for making emergency autopatches. Wouldn't it make sense to share our expertise with the public?

The idea here is to write a little booklet explaining the principles and practice of emergency autopatch. The booklet would cover:

- the principles of cellular phone service, 911 and enhanced 911 systems
- how the 911 center handles your call
- how to report an accident
- how to recognize and report special situations (e.g., hazardous materials incidents, downed lines, etc)
- how to render assistance safely and avoid becoming part of the problem.

Public Service Minded Hams - Continued

We might interest Bell Atlantic, Cellular One, the Council of Governments, or others in co-sponsoring the booklet with us. The booklet could be distributed by retailers who sell cellular phones and/or phone service.

Two kinds of talent are needed to complete this project. First, we need someone with a journalistic bent. A substantial amount of research will be necessary to develop a comprehensive guide which is acceptable to local authorities.

Second, we will need someone to "market" the concept. We will have to "sell" potential co-sponsors on the idea, and arrange for printing, distribution, and publicity. If we play our cards right, one or more co-sponsors may be willing to do the bulk of the work.

The NCAC, for its part, can provide contacts with local government officials, and help to define and organize the contents of the booklet.

This project is particularly appealing because it is limited in scope and duration. It's a fairly significant undertaking, but once it's complete, you can sit back and enjoy the results. And the public relations benefit to Amateur Radio would be tremendous for years to come.

SUMMARY

So, that's the long and short of it. There are plenty of exciting things to be done. If any of this sounds like something you'd want to participate in, make yourself known to me or to your local EC. Our phone numbers are listed in the Public Service Column, page 21.

Maybe you're interested, but don't feel that you're able to take charge. If so, let us know of your interest and thoughts. You can participate to whatever degree you feel comfortable. These projects will be accomplished by teamwork. The more players, the better.

Even if you're not inclined to get involved, we hope that you found this article interesting and informative. As an active Amateur, you should be glad to know that we're not just sitting on our thumbs waiting for emergencies to happen. ARES is NOT for couch potatoes!

P.S.

The Council meets monthly, on the third Monday of each month, 7:15 PM, at the DC Chapter House, American Red Cross, 2025 E Street NW. The Council also conducts a net at 9 PM each Sunday on the 146.91 MHz repeater. Any interested person is invited to attend our meetings and/or participate in the nets.

Skywarn Meeting March 20

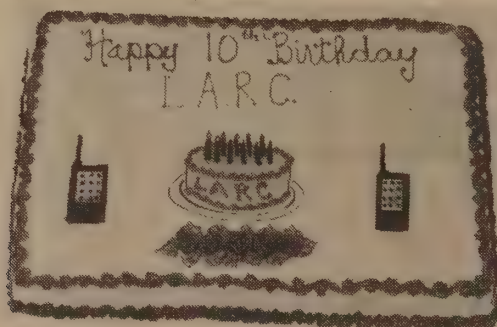
Jim has asked all ECs and other interested Amateurs in the Washington Warning Area to meet with him to discuss the program. A meeting has been set for Monday, March 20, at 7:30 PM. (NOTE -- This meeting will be in lieu of the normal NCAC meeting.) The SKYWARN meeting will be held at the World Weather Building, Room 707, 5200 Auth Road, Camp Springs, MD. The building is just inside the Capital Beltway (I-95) at the Branch Avenue (MD Route 5) exit. The location is a few miles east of the Woodrow Wilson Bridge in suburban Prince Georges County. Talk-in will be on the SMARC repeater, 147.15+.

KN3U

LAUREL ARC

A Volunteer Examiner Coordinator

Meetings: 4th Wednesday of each month, 8:00 p.m. at Capitol College
on Springfield Road, Laurel.
Nets: 1st & 3rd Wednesday of each month, 8:30 p.m. on 147.54
Mail: P.O. Box 3039, Laurel, MD 20708
Information: John - W3GFS (301) 490-5286 or Frank - K3LDE (301) 498-2213



The last few months have been very busy for the Laurel Amateur Radio Club. Our annual banquet, held on December 10 at the Laurel Pines Country Club, celebrated LARC's 10th anniversary.

Thirty-seven members and friends enjoyed a delicious dinner, a special cake and a variety of photos and news articles of club events over the years; many also recounted experiences from the past decade.



W3GFS Reminisces about Past LARC Events

Ceremonial "planks" were made and given to each of the original 7 members who were able to attend.

The officers for 1988 were thanked for their efforts which contributed to a very successful and active year.

They were:

WQ3S (President)
WA3QGA (Vice President)
KD3S (Secretary)
N3CKD (Treasurer)
KA8HRD (Member-at-Large)

We also installed the new officers:

President: W3GFS
Vice Pres: WA3QGA
Secretary: K3LDE
Treasurer: KA3QPU
Member-at-Large: KQ3S

LARC's fall Novice class, taught by N3CKD, N3FNF and KD3S, ended successfully with about 12 graduates. The upcoming Tech/General class started at Pallotti High School on February 6. Our new "faculty" this year will be WA3QGA, teaching theory; and W3DQI, teaching rules & regulations.

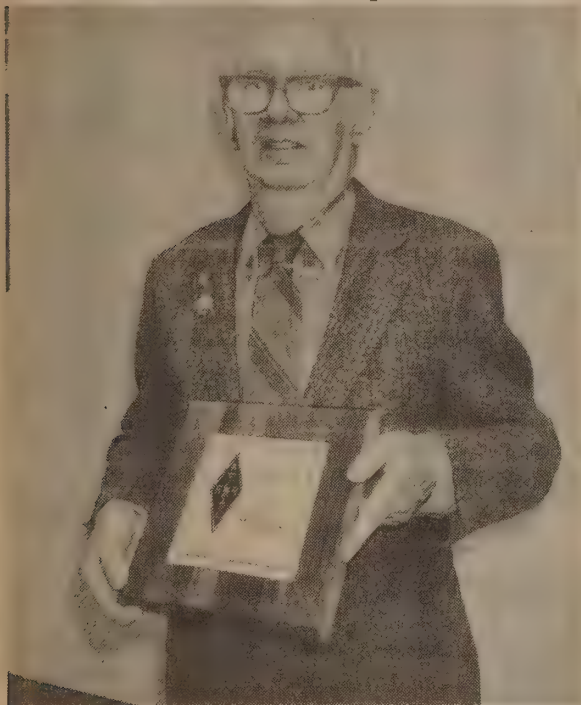
Our latest club activity is providing communications for the Washington Birthday Marathon on February 19 at the Beltsville Agricultural Center.

John, W3GFS

Arlington Amateur Radio Club

Meetings: At 7:30 p.m. on the third Tuesday of each month,
Arlington Red Cross Chapter House.
Net: Each Tuesday at 7:30 p.m. on the 145.47 Repeater.

The Arlington Amateur Radio Club started the year off by honoring Clark Barry - N4GJB for his 50 year membership as a member of the ARRL. John Kanode - N4MM, ARRL Roanoke Division director, was on hand to make the presentation.



N4GJB - 50 Year Member of ARRL

When making the presentation, John outlined Clark's history in radio and it was impressive. 50 years of active membership is quite an accomplishment. Jerry provided the refreshments and as always he surpassed himself. We look forward to hearing more from Clark in the future. Maybe we can get him to give us a program.

The club station was improved by the addition of a new table, made by Don - WA4QAX and installed by Don, Tom - W4LMW and Tom - N4BYF. Bob - AA4U donated an 80/40 dipole to the club and it is now up and running. Our thanks to Bob for the antenna and to Tom and Tom for installing it.

At the begining of the year, the weekly net was moved to N4EFJ's repeater in order to improve coverage. Craig's repeater is one of the finest in the area and many of the members call it home. Hope to hear more members check into the nets.

The club officers for 1988 set a high standard, Jerry - N3EVT finished his second year as club president. Hopfully we can still get Jerry to cater a few more activities. Harry Jones - N4CWP has been elected to succeed Jerry. Harry is a real glutton for punishment, he just finished two years as president of the Alexandria Radio Club. Jerry will be a tough act to follow but all of us know Harry's up to it. Our thanks to Jerry - N3EVT, Dennis - W4PWF, Don - WA4QAX and George - KA4PPM, our 1988 officers, for a job well done. And congratulations to Harry - N4CWP, Dennis - W4PWF, Clark - N4GJB and George - KA4PPM for taking on the jobs as our 1989 officers. Special thanks go to Dennis and George for agreeing to continue on for another year.

1989 looks like it will be another big year for the club. Plans include use of the club station for several contests in order to see just well the station works. We should have a few Simulations to exercise our ARES skills. We can look forward to a few more programs this year, and Field Day is just a few months down the road.

As a result of Tom - N4BYF's efforts, the club now has a club patch and Tom has arranged to have patches made and hats made up with the patches for members to purchase at a nominal cost. Tom will have these items at the next meeting.

Hope to see lots of old and new members at the next meeting.

Rick (N4ASX)

Capital City Amateur Radio Society

Meetings: Third Saturday of every month at 1300 local
Woodridge Public Library Conference room
18th & Rhode Island Avenues, N.E., Washington, D.C.
Visitors welcome

Repeater: W3EIL, 144.51/145.11 MHz - Open repeater

Nets: Wednesday night at 2000 local
Thursdays Packet Net at 2000 local
RTTY net at 2100 local. All are welcome

Mailing Address: CCARS, 1719 Franklin Street N.E., Washington, D.C. 20018

Information:

Again last December, shortly before Christmas, CCARS operators established two-way communications between The Hospital for Sick Children, at 18th and Bunker Hill Road, N.E., in Washington, DC, and the 'North Pole' so that the young patients could talk directly with Santa Claus. Even though some of the children, who are long-term patients ranging from 5 to 20 years of age, were bashful and hesitant about speaking into the 2-meter HTs, they were obviously thrilled at being able to express their wishes to old Santa himself.

This annual yule-tide event, originated and sponsored by CCARS, has attained a high level of realism through prior planning cooperation by the hospital staff, parents of the children and CCARS members. In connection with this program, which is highly regarded by the

hospital staff, the CCARS organization presented two Sesame Street video tapes and a much needed bookcase to the hospital.

On February 1st, CCARS initiated a Novice training program at the McKinley-Penn Communications Center at 3rd and R Streets, N.E., in Washington. The course, held from 9:00 to 11:00 a.m. every Wednesday, is a cooperative effort with McKinley High School. It is currently an elective and it is anticipated that, if successful, academic credits may be given. The first session was attended by eleven students and three members of the faculty. We are greatly encouraged by the enthusiasm shown so far. Our plans include the installation of an Amateur Radio station at the facility in the near future.

Elmer, K4EUX

Send Auto-Call subscriptions to your friends as a gift. For \$6.00 we will enter the subscription and mail a nice 5x8 certificate, as you instruct.

ALSO

Give us names of prospective subscribers or advertisers so we can send a sample copy.

Auto-call Gift Certificate

One year subscription to Auto-Call

From _____

To _____ CALL _____

ADDRESS: _____

CITY _____ STATE _____ ZIP _____

To enter/extend Subscription
Return certificate to P.O. Box 7612, Falls Church, VA 22046

Department of State ARC

Meetings: First working Monday of each month at 1200 Noon.

Main State Department Building, Room 3524, Washington, D.C.

The Foreign Service Net: Every Sunday 1500-1530Z on 14.316

1530-1600Z on 21.416 and 1600-1630 on 28.616

Repeater: W3DOS/R 145.19, open access. Round Table, Thursday nights at 8:30 p.m.

The fifth VE examination, sponsored by the Dept of State and The George Washington University ARCs, held on Saturday, Jan 7, 1989 in the Thompkins Hall of Engineering of The George Washington University, turned out to be very successful. Twelve candidates were examined in a total of 26 elements. Exams in 7 code elements (1A, 1B, and 1C) and 19 written elements (2, 3A, 3B, 4A, and 4B) were given.

Of the twelve candidates, successful license upgrades were as follows: Novice to Technician = 5, Novice to General = 2, Technician to General = 1, General to Advanced = 1; new licenses: Novice = 1. Unfortunately, there was 1 failure.

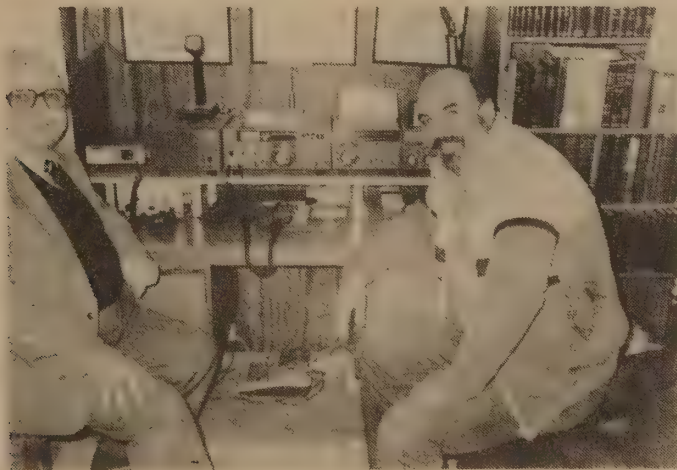
Words of thanks go to ARRL, AUTO-CALL, and the local Amateur equipment

outlets as well as the local radio Amateur clubs where notices of the examination were made available and resulted in candidates coming to Washington from as far away as Aberdeen, Maryland. Also, thanks go to the following VEs who assisted with this examination: Fred Bardsley Jr - WD4DHW, Jane Dorset - KG3R, Tom Dorset - WB4J, Derrill Rohlf - W3WOX, John Swafford - W4HU and Dave Wollen - AA4IC

The next VE examination session, sponsored by the Dept. of State and the Geo. Wash. Univ. ARCs, is scheduled for 9:00 AM, Saturday, July 8, 1989 at the same place.

Derrill W3WOX
Janie KG3R

Eyeball DXing



*John Rouse, KA3DBN (Right) visiting with TF3AC at his "shack" in Reykjavik, Iceland
John is an ardent DXer - with on-the-air and in-person contacts.*

Metrovision

FAST SCAN - COLOR - ATV

Meetings: Quarterly: Call for next meeting time and place.
Repeater: WA9GVK/4 (Video and Audio) 438-444 MHz in; 425-431 MHz out
Also accessible on 144.970, simplex, audio.
On-the-air: Sundays at 8:00 p.m.
Mailing: Metrovision, Inc., P.O. Box 8231, Falls Church, VA 22041
Information: Warren - N4MWU (703) 573-9619
Dick - WB3EPX (301) 439-8135

Those members of Metrovision who participated in the annual Marine Corps Marathon in November, have now received their marathon T-shirts. We have to compliment the Marine Corps on the quality and design of the T-shirt, which has a very nice screen print of information on the marathon. Our congratulations to all members who were involved with this event. We still need interested participants for our next event, which is the Cherry Blossom Festival Parade in April. Please contact either Bruce - WA9GVK or Warren - N4MWU if you are available and willing to help.

There is the possibility that Metrovision will be setting up an ATV satellite receive site somewhere in the Rockville area. We hope to have more details on this later. Metrovision may eventually have Baltimore, Washington, Rockville and Annapolis all linked together via the ATV repeater. Experiments already have been conducted on 900 MHz and we understand that Bob Bruninga - WB4APR has constructed and is testing an ATV repeater for the 900 MHz band. Again, any information we receive on this new project will be passed on in future articles.

Are you having trouble designing a title display with graphics, name and call sign for your ATV programs? I would like to recommend the Doodle graphics design program for the Commodore 64. You may be able to get Doodle for other computers as well. This program will give you the flexibility of designing just about any type of screen you want, and you can save the design to disk, and send it out over ATV. I would recommend, however, that you use a trackball instead of a regular joystick for additional flexibility.

Metrovision was able to relay the first ATV live transmission from the West Coast to the East Coast on January 2. The event transmitted was the annual Rose Bowl Parade from Pasadena, CA. Although this was only a one-way transmission, the results were very positive. Bruce - WA9GVK was able to video tape the event and he showed the results on the Sunday night ATV net. We hope that this type of event will occur more frequently in times to come. We also want to thank Bruce for giving us a demonstration of 3-D television on our net.

See you on ATV.

Dick, WB3EPX

More new Technology

Still another new development in technology is predicted to replace the laser in laser printers. A new device called a "thin film electroluminescent edge emitter" has been developed by Westinghouse Electric Corp. The solid-state device, made of zinc sulfide, permits printing at much higher resolutions than is practical with lasers and is smaller and less trouble prone because it has no mirrors or other moving parts. Equipment based on the new concept is expected to be available next year.

Woodbridge Wireless, Inc

- Meetings:** 3rd Tuesday of each month, at 7:30 p.m.
Springwood Community Center, Corner of Springwood Drive and
Chauncher Court, just West of Woodbridge Airport.
- Repeater:** WB4FQR/R 147.84/24 and 449.9/444.9
WB4GJZ/R 223.18/78
- Nets:** Mondays, 8:00 p.m. local (0100 UTC) 147.84/24, 223.18/224/78
(the repeaters are linked for the net.)
Wednesdays, Slow CW at 8:00 p.m., 21.164 MHz
Saturdays at 9:00 p.m. - in new 10 Meter Novice band
28.460 MHz SSB
- Mailing Address:** P.O. Box 112, Woodbridge, VA 22194
-

WWI has entered the new year in better financial shape than it has been in for years. Thanks to some talented leadership which has continued to bring the club back from the lean years. Thanks to new budgeting techniques (legal) and renewed membership interest, the club is an organization which has rededicated itself to its Amateur Radio service goals and to having fun in the process. This year, the dues were lowered \$5.00 from last year's high. The more members who participate, the more the cost (in time and money) is spread around. With everyone pulling, this year should be the best yet.

Denis, WD4KXB, reports that the new controller will not accept 3-digit telephone numbers, AKA "911". This seemed a great problem for health, welfare and safety use of the machine until Larry, KC4APT, reported that one need only enter "911" followed by any four numbers. The controller is happy and the 911 equipment ignores the trailing numbers. That'll hold us until the technical committee has a chance to tackle that problem!

John, N4LJS, the "unofficial" NCS for the Monday night 2 meter network, recently published his philosophy on its operation. It is to be an informal gathering, but under control of the NCS. It should be a place where information is disseminated, people can meet, and have a swap-and-shop.

Some of the information to be passed along includes an abstract of the WWI monthly meeting minutes (during the first net after the meeting is held), contests for the following week, upcoming WWI activities, and any DX information.

The meeting section of the net (general check-in) is a chance to brag or complain, and pass along messages.

The last part is swap-and-shop and request for technical information. The 220 repeater (WB4GJZ/R, 224.78 out, 223.18 in) is linked to the 2-meter controller during the net so that members holding novice licenses may participate.

The new Novice/Technician licensing class began on Thursday, February 16. A big pitch was made about attending the meetings and getting to know club members while studying to become an Amateur.

Field Day sites we are checking out: Bel Air Farm, the old Colonial Transit Bus Barn, Veterans Park, Russell field at Minnieville and Smoketown. Any other suggestions? Band Captains signed up: 80 phone, KJ4LR/K0LB; 80 CW, WB4RDV; 40 CW, K8EI; 20 phone, WD4KXB; 15 CW, N4LJS; 10 phone, WA2VGV; VHF/UHF, WA0DYJ/WB4EIY; packet/ multipliers, NF4T. We still have openings for 40 phone, 20 CW, 15 phone, 10 CW, satellite, and a cook.

(Continued on page 48)

Metropolitan Communications Network

Meetings: Quarterly, on the second Sunday of the month.
W.A.T.A.'s Community Meeting Room, 4729 14th Street N.W.
(at Decatur Street), Washington, DC - unless otherwise announced.

Repeater: N3AGB/R, 52.250 MHz in; 53.250 MHz out. Accessible on 144.950 MHz in the simplex mode.

On-the-air: Saturdays at 1900 hours.

Mailing: c/o Bob Sporn - WA3GGO, 9927 Cottrell Tr, Silver Spring, MD 20903

Information: Bob Sporn - WA3GGO (301) 434-1719

The 75-mile-an-hour winds during the recent storm bent Rudy Williams' (W3UBZ) tower like a straw in a soft drink glass, according to Rudy. The four element VHF Yagi was down. But it did not take long before, in the best tradition of ham radio, Bob Milligan -KI4MB and Randy Kelly - WB4MJF appeared on the scene with climbers and put Rudy back on the air.

Our next meeting will be held Sunday, March 12th, at 1400 hours at W.A.T.A.'s Community Meeting House at 4729 - 14th Street NW (at Decatur Street) in Washington DC. Charles Tipton, III - WA3STY of Columbia joined our Saturday night net, as did our new member, Vincent A. Del Giudice - WB2KQG, of Arlington, VA. Congratulations are due to Vinney for scoring 93% (second highest) on a test for Emergency Medical Technician. Vinney is a volunteer medical technician for the Cherrydale Section of the Arlington, VA Volunteer Fire Department.

THE SUNDAY MORNING COFFEE NET (6 METER AM) ON 50.4 MHZ AT 0900. With the band openings, Rich Weaver - KA3BTD worked Great Britain, Surinam, Ecuador (HC5K), and the Galapagos Islands in the Pacific Ocean, on six meters.

R. Alfred Whiting - K3BRS of Lanham joined our net. Stanley Brigham - W3TFA visits our net biennially and boosted to 12 the number of check-ins on the 29th of January.

We were taken aback when Bill Kight - WA4MUA told us that his son, NK3G, sold Bills radio gear -- until he explained that his son replaced the old stuff with a Kenwood 680!

MARYLAND FREE STATE SIX METER SIDEBAND NET: SUNDAYS AT 1900 HOURS ON 50.125 MHZ. Dick Logan - WB3EPX continues to be net control on this net. Join us on any of the above frequencies.

Bob, WA3GGO

Woodbridge Wireless - Continued

TEN YEARS AGO THIS MONTH. President, Denny, WA4OMG; Vice President, Doug, WA4GUA; Secretary, Bill, K8SYH; Treasurer, John, WB4GJZ. The 1296 beacon was working well - DX of 3-1/2 miles. A 60 watt bulb was installed in the repeater hut to warm the duplexer. Program presented by WA0DYJ and WB4FQR on 'Micro-computer in the

Ham Shack.' K3ULQ reported novice class of 28-30 students and was looking for a new Education Committee chairman. K4EBS and WB5OOD received kudos for control of repeater traffic during recent snow storm, repeater etiquette also discussed. FAR widow's assistance group brought equipment for sale to the meeting. Jim, WJ4M.

Shenandoah Valley Chapter #137 QCWA

Meetings: 3rd Wednesday of September, November, January, March, May, July.
Jimmy's Restaurant in the Holiday Inn on Rt 50 at I-81 Exit 80
Social Hour 5:30 p.m. and Dinner ordered at 6:00
Guests are always welcome - reservations are required.
Call (703) 662-7526 by Noon of the meeting day.

Information: Secretary/Treasurer Perry Crabill, W3HQX; (703) 662-7526.

Mailing address: 449 Milam Drive, Winchester VA 22601

The Shenandoah Valley Chapter No. 137 of the Quarter Century Wireless Association met on Wednesday, January 18 at Jimmy's Restaurant in the Holiday Inn on Route 50 East of Winchester, VA. Thirty-two members and guests were present.

Secretary/Treasurer Perry Crabill - W3HQX distributed copies of the Treasurer's Annual Report for the calendar year 1988. The year began with a balance of \$46.19. Total income was \$166.50. with expenses of \$111/20, leaving a balance of \$101.49 as of December 31.

Walter Johnson discussed the need for members to act as "Elmers" for newly licensed Amateurs, and the questionnaires distributed recently about the desirability of forming a local QCWA net.

Steven Czaikowski - WB4ZTR was the speaker for the evening. Steve was first licensed at the age of 13, as WV2ZKT, and upgraded to General Class with the call WA2ZKT. He became WB4ZTR when he settled in Virginia after leaving the Air Force in 1972. He received his Extra Class license in 1986, and is an active Volunteer Examiner for the ARRL VEC. Steve is a Life Member of ARRL, a member of QCWA, and the Emergency Coordinator for Frederick and Clarke Counties. He is employed by the Columbia Gas Transmission Corporation at Strasburg.

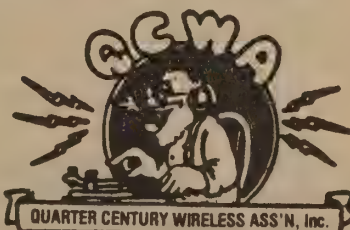
Steve presented a 12-minute ARRL videotape about Amateur Radio and disaster preparedness titled "At Any Moment." This describes the role of the Amateur in providing communications during natural and man-made disasters, and shows how the Amateur Radio

Emergency Service, through organization, training and planning, can function effectively at such times.

The next meeting is scheduled for March 15. Our speaker will be Ms. Providence LoPresti from Stephens City, president of the Blue and Gray Search and Rescue Dog Teams. For the past five years, Ms. LoPresti has operated in the Middle Atlantic states searching for lost children, hikers and hunters. More recently, she spent a week working with three Canadian teams and another American team looking for earthquake victims in Leninanken, Armenia. Ms. LoPresti will have her search dog, Merlin, an Australian cattle dog, with her as she tells us about her experiences.

Perry Crabill, W3HQX

25 Years a Ham?



- Preserves and promotes Amateur Radio
- Awards & recognition for members
 - Over 160 local chapters
 - CW and SSB nets • QSO parties
 - Over \$5,000.00 awarded annually in youth scholarships

You owe yourself the privilege of QCWA affiliation

**40th
Anniversary**

Quarter Century Wireless Assoc.
1409 Cooper Dr. • Irving, TX 75061

Southern Maryland Amateur Radio Club

Meetings: 2nd Friday of each month, 7:30 p.m.

Church of the Nativity, Manchester Drive, Camp Springs, Maryland.
(Right at first light on Route 5 South of Beltway and immediately left into mid-block driveway).

Repeater: W3PT/R 147.15/147.75

Nets: Informal - Tuesdays, 8:00 p.m., W3PT/R
Informal - Thursdays, 8:00 p.m., 28.447

Information: P.O. Box 273, Cheltenham, MD 20623

Dick Daniels - W4PUZ, of AMSAT, was the guest speaker at the January General Membership Meeting. His comprehensive presentation on the construction and launching of the Oscar satellites was most informative. We deeply appreciate Dick sharing his time and knowledge with us.

Awards were also presented at the meeting to Bill - N3FHV, former Secretary, and Charlie - W3CQB, former Activities Manager, for their services as club officers in 1988. You did a fine job, and we are proud of you.

Check-ins to the 2-meter net on Tuesday and the 10-meter net on Thursday have been running between 16 and 24. Visitors are welcome to join in on the nets, both at 8:00 p.m., as well as attend the General

Membership meetings the second Friday of each month at the Church of the Nativity in Camp Springs.

Congratulations to Robin Conte who recently passed the Novice Exam. A total of four people passed the exam at the conclusion of the Novice Training Class.

The following quote from Woodrow Wilson reminds me of our obligation as an Amateur Radio operator -- "You are not here merely to make a living. You are here in order to enable the world to live more amply, with greater vision, with a finer spirit of hope and achievement. You are here to enrich the world, and you impoverish yourself if you forget the errand."

Janice - N3GLB

PCB's in Dummy Loads

Concerns are still expressed occasionally about PCBs in the coolant used in some old dummy loads and even oil filled capacitors. Actually, there is little to worry about these days, but if you are still concerned about some ancient equipment you bought at a flea market, there is a simple test to put your mind at ease. Put a drop of the coolant into a glass of water. If it flattens out on the surface it is oil. If it sinks, it is most likely a PCB. It is as simple as that. The specific gravity of transformer oil is 0.88. The SG of PCB coolant is 1.56. The relatively small oil filled capacitors are "oil filled" and that means mineral oil, so you don't have to worry about them.

There is no such thing as "PCB oil," PCB coolants were a synthetic chemical compound and their use is now forbidden by law. They were used in large power transformers in the 1960-1970 era, and some hams scrounged the coolant from the power company or industrial plants because it wasn't possible to buy transformer oil in small quantities. Even then, there was little danger that the Amateur would experience the "continued exposure at high levels of concentration of PCBs" that was found to produce cancer in rats. (Information from 2/89 RaRa Rag, Rochester, NY, in article by George Spencer, VE3OZW)

Vienna Wireless Society

25 Years of Public Service
1963-1988

Meetings: 2nd and 4th Fridays of each month, 7:30 p.m.
Vienna Community Center, 120 Cherry Street, Vienna, VA
Repeater: K4HTA/R
Nets: Every Thursday at 7:30 p.m. on 146.085 in and 146.685 out.
Alternate simplex frequency is 147.51
Pow-Wow Net Every Night at 9:00 p.m. at 28.400 MHz
Information: Brian Treadwell, WV4V (703) 938-1442 (Home), (202) 457-7179 (Office)
Training Classes: Paul Wilkins, AB4CY (703) 569-2779
Mailing Address: P.O. Box 418, Vienna, VA 22183

WINTERFEST TM 1989

Vienna Wireless Society will sponsor the first Amateur Radio "flea market" of the new year for metropolitan Amateur Radio operators and electronic hobbyists on Sunday February 26th. This popular event will be held at the newly expanded Vienna Community Center, 120 Cherry Street, Vienna, VA, between the hours of 8:00 a.m. and 3:30 p.m. More space and more vendors will be apparent to previous attendees. Dave Rogers - N4JGQ is the 1989 Winterfest TM chairperson. Dave and the VWS membership looking forward to a large attendance. Come out and buy that much needed electronic part, publication, or rig.

Amateur Radio Examination

The Vienna Wireless Society will sponsor an Amateur Radio Exam on February 25th at the Vienna Community Center. Walk-ins permitted. For details, please call Nancy Draheim, NK4U at (703) 691-0078.

Training Program

Training classes for the Novice and Technician/General exams sponsored by VWS began February 13th at the Vienna Community Center and will run through April 3rd. Call AB4CY for details - (703) 569-2779.

Proposed Restrictive Antenna Ordinance

On January 25th, the Town of Vienna Planning and Zoning Commission held a public hearing on a proposed restrictive ham radio antenna ordinance. Forty-five VWS members attended the hearing. Seven members spoke publicly against the ordinance, informing the commission of the public service contribution made by VWS to the community and the inability of Amateur Radio operators to fully participate in the goals and purposes of Amateur Radio if restricted to one outside antenna.

Many technical flaws in this poorly drafted proposal were pointed out, and the discriminatory nature of the ordinance was noted since the proposal made no mention of restricting CB operators or SWLs. VWS's position is that existing town and country ordinances are adequate for the community. Another hearing on this issue may be held but as of yet is unscheduled.

Brian Treadwell, WV4V

Anne Arundel Radio Club

Meetings: 1st and 3rd Thursdays at 8:00 p.m.
Davidsonville Family Recreation Center, Queen Anne Bridge & Wayson
Roads off MD Rt. 214 near Annapolis.
On-the-air: Thursdays, 2030 Local time when there is no club meeting,
on 147.705/105.
The Chesapeake Bay Weather & Traffic Net on 147.705/105
at 1100 and 1500 every weekend day and public holiday
from April 1 to November 15.
Maryland Slow Net (MSN) every evening at 1930 on 3.7170 MHz
W3VPR Packet Bulletin Board on 145.09 MHz.
Novice Packet Bulletin Board on 223.40 MHz
Address: P.O. Box 308, Davidsonville, MD 21035
Information: Margaret (Holly) Bevan - N3BMB (301) 923-0229

The word must be getting around that Amateur Radio is a fun hobby. The AARC Novice class, which started on February 1st, had a total of 80 registrants. Fifty-six appeared for the first session, including five who were not listed. About six persons had made known that they could not attend the first class. So, it looks as though the finalized enrollment will be in the neighborhood of 60. In the group are at least ten wives, children or grandchildren of present club members. AARC seems to have become a "family" club.

We regret to announce that Bill Blair - W3MAH became a Silent Key on January 13th. A long-time resident of Pasadena, MD, Bill was 87. He retired in 1964 after working 35 years in Baltimore's Camden Station as a train dispatcher. He was the founder of the B&O ARC. In recent years, ill health prevented Bill from taking part in club activities, thus he was not known by the newer AARC members.

There is growing evidence of ever-increasing enthusiasm for club activities among the AARC membership. At the February 2nd meeting there were about 60 in attendance. The renewals for the 1989 club year are well over 200 --- a record renewal percentage for the group.

There is also much interest in upgrading licenses. Ken Wright - N3GAW and Ed Sammis -KA3ACM now hold the Extra license. Ken moved up two classes in January. Ed took two months to upgrade two notches. Ron Jeter - N3FDI and Joe Young - KA3TDG are now Advanced. Joe, who was a graduate of the 1988 Novice class, moved up from Tech in one test session. Peter Law - KA3TDF (age 12) was also a member of the 1988 class. He recently upgraded to General.

Holly, N3BMB

This is Going TOO Far!

The Martin Marietta Corporation at Oak Ridge Lab in Tennessee has developed a silicon microchip to be glued onto a bee!!! The chip weighs 35 milligrams, contains its own power source (an array of miniature solar cells) and a laser diode transmitter that can send signals to ground based receivers many miles away. The purpose is to track the migrating habits of the bees. The bees will not have to pass a code test or other licensing requirements.

(Ed. I can't help thinking about my old Johnson Viking transmitter and HQ-129 Receiver. This miniaturization thing has gone too far! (Info from QCWA Journal via RaRa Rag)

Alexandria Radio Club

ARES NET: Thursdays at 9:00 p.m. on the 147.315 Repeater
10 METER NET: Meets on Thursday nights at 9:30 p.m. on 28.350 MHz USB.
 The Club sponsors Repeaters on 147.315/915, 444.6/449.6, 6 Meters and 220 MHz
Meetings: The second and fourth Fridays of each month at the Red Cross
 Chapter House, 401 Duke Street, Alexandria, VA.

With this column we finish another banner year full of fun, good friends, and lots activities. 1988 was the year we finally reworked the radio shack at the Red Cross. Ben - N4SFG donated a computer table and Harry - N4CWP led a group of ...well... in a rework of all the clubs antennas and clean out of the station. The beam on the roof now functions on 10/15/20 Meters like a champ and there are now two two-meter antennas on the roof, one for voice and one for packet. The station proved its worth when the Red Cross asked us to establish contact with stations in Texas during Hurricane Gilbert. The station also was used in a couple of contests and proved that we could talk to where ever we needed. Special thanks to Bill - KC2DA, Rich - KA4GFY, Chuck - N4HCP and Ben for there fine work.

Field day with the Arlington Amateur Radio Club was a blast. We proved that no matter how much space you have it ain't enough. The combined efforts of the two clubs put us in the top third of the category. Jerry - N3EVT of the Arlington club did a fantastic job with the food and Bob - AA4U proved that a CW op could organize a top notch field day. In 1989 our club will again host field day and unless we can find a better place will see you all out in the field at Ft Ward Park.

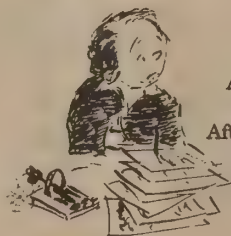
With the end of the year we elect new officers to guide the club. Congratulations to Rich Adamy - KA4GFY, our new fearless leader, and the other new officers. And special thanks to Harry who has been one of the best club presidents the club has had and for serving for not one but two years, and to Rich - KA4GFY who was Vice President and now takes on the tough job of president, Dan our outgoing secretary and Chuck our Treasurer. Harry will still be active in both our club

and in Arlington. He was elected president of the Arlington club for 1989. No rest for you, Harry.

Many of the club members are now up on Packet and this next year there are plans to install a packet digipeater in the city for use primarily with ARES but also for routine keyboard to keyboard chatter. Other improvements are planned for the club station, including an antenna for 80/75 and 40 meters, a packet station. Chuck our EC will be talking to us about our relationship with the city and plans to arrange training and at least one SET. So keep your receivers on and be ready.

See you all at the meetings.

Rick N4ASX

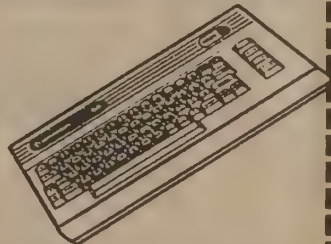


Auto-Call Editor

After putting out a 64 page paper!

Commodore

Service
While
-U-
Wait



64-128-1541-1571 - Amiga 500

Virginia
Micro
Systems

Authorized Service Center
In & Out warranty

13646 Jeff Davis Hwy.
Woodbridge, VA 22191
(703) 491-6502 Metro: 643-1170
Hours: MWF 12-8 T Th S 10-4

G AND G ELECTRONICS
OF MARYLAND

8524 DAKOTA DRIVE, GAITHERSBURG, MD.

**WANTED
FOR
CASH!**

**USED Ham Gear, Test Equip.
and Junque Boxes**

G&G ELECTRONICS OF MARYLAND
JEFFREY GOLDMAN

8524 DAKOTA DRIVE (301) 258-7373
GAITHERSBURG, MD 20877

548

March 1 19 87

65-7198/2550

PAY TO THE
ORDER OF

John Q. Amateur, WA4XYZ

\$ 500.00

Five Hundred and 00/100

----- DOLLARS



CHEVY CHASE SAVINGS
AND LOAN, INC.
CHEVY CHASE, MARYLAND 20815

FOR Used Equipment

==== SAMPLE =====

⑆ 255071981⑆

0548

We've got one for you!

**HOURS: MON & TUES 11AM TO 9PM
WED 11 TO 5 & BY APPOINTMENT**

258-7373

SHACK SALES

Noncommercial advertising of Amateur associated equipment is available to subscribers of AUTO-CALL at a rate of 3¢ per word -- with a \$1 minimum. Commercial vendors and nonsubscriber rate is 17¢ per word - with a \$5.50 (1 inch) minimum. Special headings or special spacing (e.g. one item per line) may be used but such ads will be charged at the column inch rate.

Estate sales for Widows Assistance handled by a FAR club will be published without cost.

Full name and address must be provided with each ad but need not be published. No ads will be accepted over the telephone and all ads must be pre-paid. Since no effort is made to investigate advertisers, no warranty can be implied.

Copy must be received by the 8th of the month preceding publication.

FOR SALE: HW-101, MFJ 941-D Versa-Tuner, Cushcraft AV-5 5-band vertical. Astatic 10-DA mike. Good working order - \$175. A bargain. Steve (703) 437-7312 (Herndon, VA) (03)

FOR SALE: HEATHKIT HM2102 VHF Wattmeter \$25
CDR AR22XL Rotator \$25
HEATHKIT Colorbar Generator IG-28 \$30
SMITH-CORONA Portable Manual Typewriter with case. \$30
MFJ-910 Antenna Matcher \$10
HUSTLER MO-2 Base, RM20S, RM75S coils, 3 coil adaptor and Antenna Spring Mount \$65
Bernie - K3DH Phone (301) 869-1814 (Rockville, MD) (03)

FOR SALE: Mirage B3016 two-meter FM/SSB 160 watt mobile amplifier with pre-amp and remote control. Requires only 30 watts drive. Works great! It's just more than I need - \$250.
Bob - K3HF (301) 330-6817 days or (301) 972-6450 evenings. (Germantown) (03)

Need Antenna or tower work done?
Call L. Chertok - W3GRF.
(301) 297-4888 (C-12)

NORM'S ROTOR SERVICE

Rebuilt Rotors, Parts & Service
Call Norm Jeweler - K3LYW
677 Southlawn Lane
Rockville, MD 20850
(301) 340-0520
(C12)

FOR SALE: 2-M FM HT Package Deal! FT 209RH (Yaesu) including two NICAD battery packs. drop-in charger, plug-in wall charger. A \$485 retail value for \$350. Call (202) 898-9682 and leave a message. (Wash DC) (03)

WORLD RADIO, Amateur Radio's monthly newspaper can be delivered to your doorstep for only \$12 per year (\$22 overseas). Get the latest on how your fellow amateurs use their hobby to help others. Regular features are Aerials, Bob's Corner, Contest & Hamfest announcements, Digital Bus, DX World, MARS, Mobile, FCC Highlights, New Products, Propagation, QCWA, QRP, Six Shots!, Station Appearance, Traffic, VE Exams, 10-10 International News. Send your subscription to **WORLD RADIO**, 1779 Tribute Road, Ste. L, Sacramento, CA 95815.

WANTED: Ham equipment and other property. The Radio Club of Junior High School 22, NYC, Inc. is a non-profit organization, granted 501(C)(3) status by the IRS, incorporated with the goal of using the theme of ham radio to further and enhance the education of young people nationwide. Your property donation or financial support would be greatly appreciated and acknowledged with a receipt for your tax deductible contribution.

In Dayton meet the Crew From 22 and relax at our flea market tables. Check in on 144.30 simplex. Please write us at: P.O. Box 1052, New York, NY 10002, or call our 'round the clock hotline: (516) 674-4072. Thanks you! Joseph Fairclough, Pres. RC of JHS 22 NYC, Inc. WB2JKJ (Paid C02)

FOR SALE: 75A4 Collins receiver, Serial No. 983, mint condition. Will deliver 200-mile radius \$600.
Millen grid dip oscillator with coils and antenna bridge. \$75
Antique tubes: C-300, UV201-A, 485, 426, 81, NX-250. All filaments intact. Make offer. Fred Jestaedt (301) 464-8513 (Bowie, MD) (03)

SHACK SALES

FOR SALE: Kenwood YK-88C 500 Hz CW filter for TS-440/130/430/830/530- \$50
Parts for homebrew linear including plate xformer, filament xfmr, variable caps. Also old radio handbooks. Carl - K3RV (703) 255-3352 (Vienna, VA) (03)

WANTED: Tech Manuals for:
Military TV-7D/U tube tester, Tektronix 561-B scope and 3A74 plug-in GR1650-A impedance bridge. Must be good, clean condition. Gary Alley, 7100 Constantine Ave, Springfield, VA 22150 (703) 569-8964 (03)

FOR SALE: OSCILLOSCOPES:
All excellent, 5" solid state, triggered, calibrated, with probes and manuals:

6 MHz CONAR Mod 255 \$90
5 MHz HEATHKIT IO-4540 \$125
10 MH HEATHKIT IO-4555 \$185
10 MHz dual trace B+K Precision Mod 1471B \$300
Ignition Analyzer Scope Mod IO-20 \$60
Also silk GEISHA costume, 7 pieces \$75
William Misiek, 405 Royalton Road, Silver Spring, MD 20901 (301) 593-3953 (3)

FOR SALE: YAESU FL-2000 B Linear Amplifier in perfect condition - \$350.
HQ-100 Hammarlund Receiver. A real beauty. Make an offer. Jim - K4CVI. Call (703) 538-2726 any time. (Falls Church, VA) (03)

WIRE, COAX, ROPE, CONNECTORS

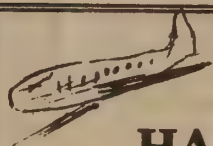
Why pay full price?

Silver/Teflon(r) PL-259. \$13.50/10
Factory Fresh coax:
RG-213 \$30/100'
RG-8x \$14/100'
International 9086 \$40/100'
Ladder Line. \$10/100'
#14 (7x22) wire: HD copper \$7/100'
copperclad \$8/100'
3/16" black double Dacron(r) Line \$10/100'
MilSpec 3/16", UV, Fire, Abrasion resistant, green 700# braided Dacron(r) Line \$9.95/200'
Best HF wire antennas and baluns.
Unbeatable prices. 24 hour service.
10% (\$3 minimum) shipping. MC/Visa.
Mention ad and receive Free 40 page Catalog.

RADIO WORKS

Box 6159 Portsmouth, VA 23703
(804) 484-0140
(C03)

FOR SALE: Two meter Transceiver Yeasu 227 R. Two meter Transceiver Yeasu CPU 2500 with UM-2500 Keyboard Mike. Both units are in top operating condition and are complete with manuals, etc. Phone (703) 667-1474 (Winchester, VA) (03)



Fly To DAYTON HAMVENTION Special Fares

Super Saver fares plus additional 5%

Based on minimum of 10 people

Flights out of National and Baltimore

Space Available Seating

To March 1

Travel Specialist

Roz Failoa
XYL of K3WX
(301) 984-8288



The Dayton/Cincinnati Chapter 9 QCWA will hold its Annual Banquet in conjunction with the Dayton Hamvention on April 28 at Neil's Heritage House in Dayton, Ohio. COD Bar at 6:30; Dinner at 7:30. Tickets are \$13 each. For tickets, contact Bob Dingle, KA4LAU, 657 Dell Ridge Dr., Dayton, Ohio 45429. Progress is underway for an interesting speaker for the evening. Come and join the fun. QCWA membership is not a requirement to attend.

The Vienna Wireless Society

WINTERFESTTM 1989

Sunday, February 26
7:30 a.m

Vienna Community Center
120 Cherry Street
Vienna, Virginia
(newly renovated center)

GENERAL ADMISSION

\$4.00 per person at gate
12 and under free

FOOD SERVICE

By Vienna Fire Department
Ladies Auxiliary
Early morning breakfast
available

TAILGATING

\$7.00 per space
Tailgating opens
at 6:00 a.m.

First come, first served
Spaces are limited

FOR INFORMATION:

Harry Kaklikian, W4ACN
4941 Andrea Ave.
Annandale, Va. 22003

AN ARRL APPROVED HAMFEST

SHACK SALES

New ARRL DATA BOOK (\$12 list) \$10.95

New HINTS & KINKS (\$5 list) \$4.55

Greater discounts for 10 & up

Call/write for full-line
discount catalog

JWO SERVICES

12 Hickory Place Camp Hill, PA 17011

(717) 737-0850 John, W3IS

----- (C03) -----

FOR SALE:

* Alpha 77D HF amplifier with built-in power supply, manual. Rated: 3 KW and covers 3 - 30 MHz, 8877 final - \$2995.00

* Collectors of Keys: McElroy, "Deluxe Model Mac Key", SN. 365, very good condition - "best offer."

* MFJ RTTY/CW Deluxe "Computer Interface", Model: 1229 - \$100.00

* National NC 303 ham band receiver with manual and 2-meter converter, excellent condition - \$225.00

* Icom IC 701 transceiver, 701 PS, EX1, RM2, SM2 - \$575.00

* Kenwood AT 200 antenna tuner, TV 502 2-meter transverter - \$175.00 each.

Tony Musero - K3UKW (215) 271-8898 after 6:00 p.m. local. (Philadelphia) (3C)

FOR SALE: DRAKE TR-4 transceiver

10 - 80 bands, with MS-4 speaker, AC-4 power supply, manual and extra tubes.

Will demonstrate on air \$200

E. F. Johnson 1 SWR-PWR meter -

Directional Coupler \$12.00

Johnson Low Pass Filter 50 ohms \$8.00

Craftsman electric engraver . . \$3.00

Cornet - Grand Rapids, with case \$50

excellent for student.

Robertshaw Thermostat - Combination

heating and cooling 6-30 v. Like new

used one month. Cost \$25 . . \$8.00

WANTED:

Kenwood Transceiver with tube finals, such as 530-S, 520 and 830s. Bus - W4EGU (703) 751-4037 (Alexandria) (03)

K3UAL Print

QSL Cards

1520 Jutewood Ave.

Hyattsville, MD 20785

Call Joe (301) 773-9383 or

(301) 773-5074

Note correct phone numbers!

FOR SALE: ICOM 2AT 2-meter handheld, has weak receiver - \$85. TV Camera with lens - \$35. Lamkin FM Deviation Meter - \$25. URM-25D 10 KHz to 50 MHz Signal Generator with book - \$50. 5/8 wavelength antenna for Handheld - \$10. HEATH VFO and EICO 723 CW transmitter 80-10 - \$40. GE 2-meter Portamobiles - \$20. 300 watt 2-meter power amp by ITT (once sold by Fair Radio) - \$185. Laser 1MW with power supply. Has soft tube - \$30. SONY Video Rover Camera - \$150. Crystal control HF SSB Xcvr 50 & 150 watts for CAP/MARS use, 2 each @ \$50 each. One all solid state HICKOK Mod 511 10 MHz scope, solid state, good - \$85. Chart recorders (several) - \$20. Trades possible on everything (MW, UHF, ATV, Test Equip, etc.) Glen - KAØESA (703) 239-0125 after 7:00 p.m. (Springfield, VA) (031)

DO YOU HAVE

USED GEAR TO SELL?

Give us a call or write

K3UKW

Tony Musero

1609 S. Iseminger Street

Philadelphia, PA 19148

(215) 271-8898

WE

BUY * TRADE * SELL

USED GEAR

York Springfest

March 5

The Second Annual York Springfest
Ham/Computer fair

Will be held Sunday March 5 at the
Firehall, Dover, PA. Food, Refreshments,
VE Exams

Inside tables \$10. Registration \$4
Unlicensed spouse and under-12 free

Tailgating Free

Blacktop Parking

General Admission at 8:00 a.m.

Talk-in on 146.37/.97 and 147.93/.33

For Advanced information & registration

Call (301) 239-3878

Or write:

YORK SPRINGFEST, P.O. Box 50
Shrewsbury, PA 17361-0050

SHACK SALES

DESPERATELY SEEKING a tri-band beam and rotor! Call Bob - WB4FCR in Washington, DC at (202) 667-4240.

FOR SALE: Scanner - Radio Shack Pro 2004 25-1300 MHz 300 channels, new condition - \$325. John N3BAI (301) 598-7036 (Kensington, MD) (03)

Many Thanks to all those who have helped me in giving old bugs a home. Looking for McElroy hand key, Lionel and Bunnell bugs. Smiley - WB4EDB, (703) 373-0996 P.O. Box 5150, Fredericksburg, VA 22403 (03)

FOR SALE: HF Amplifier BTI LK-2000, H.D., PS 3-1000Z tubes, full 2KW PEP. New band switch, relays, etc. Runs and looks new. Price \$500. Dick Graves, W4NTX (703) 281-2991 (Vienna, VA) (03)

WANTED: McElroy bugs, hand keys and Vibroplex zephyr bug or any old or unusual bug. Help appreciated in locating such. "Smiley" White - WB4EDB POB 5150 Fredericksburg, VA 22405. (703) 373-0996

WANTED: RHON 45 tower sections and other 45 hardware. John - N3BAI (301) 598-7036 (Kensington, MD) (03)

WANTED: Telegraphic Mill for practical use. Cosmetic appearance irrelevant but must be in good working condition, without mechanical defects such as sticking or bent keys. Ray Anderson - NR3Q, 13318 Old Chapel Road; Bowie, MD 20715. (301) 262-8633

VACUUM TUBES: 70,000 in stock. Reasonable prices. Quick turn-round. VACUUM TUBE STORAGE BOXES: White. Four sizes. For lists send business SASE to TYGER ELECTRONICS, Box 750, Clinton, Maryland 20735. Phone Bob at (301) 248-7302.

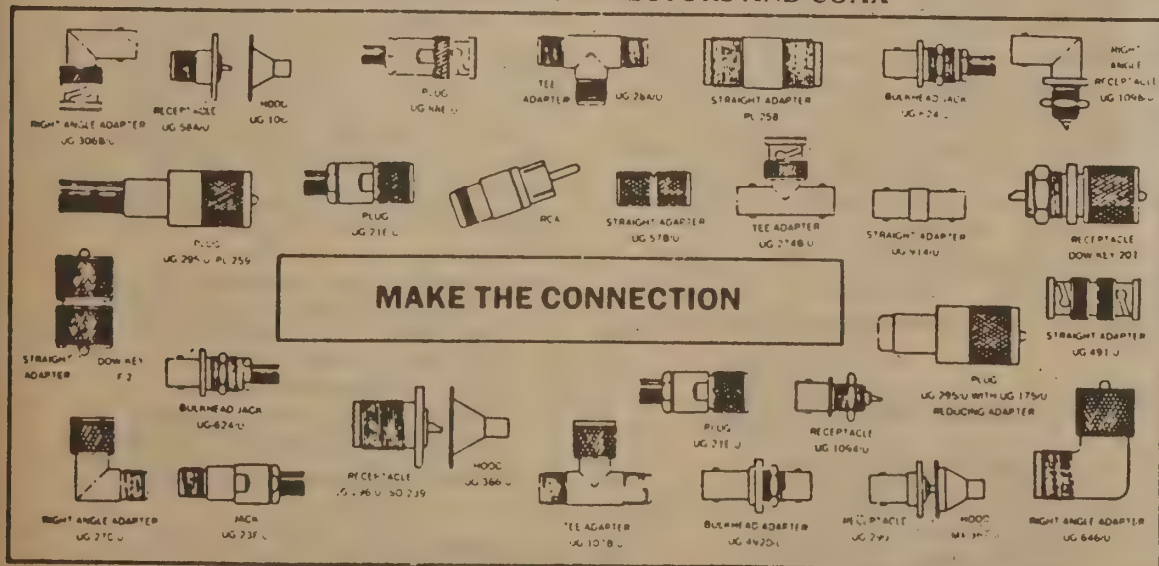
POLO SHIRTS & SWEATERS SWISS EMBROIDERED

With your Callsign in Block Letters
WESTEND ENTERPRISES
Bethesda, Maryland 20816
(301) 320-6384 Eve. & weekends.

See Auto-Call rate sheet on page 62

The R.F. Connection

"SPECIALISTS IN RF CONNECTORS AND COAX"



The R.F. Connection

213 N. Frederick Ave., Suite 11, Gaithersburg, MD. 20877
301-840-5477

-290

SHACK SALES

FOR SALE: COLLINS "S" Line 32S-1 Xmtr, 75S-3 receiver, 312B4 Control Unit, 516F-2 Power Supply, with all cables & manuals. Excellent condition. . \$500

HEATHKIT SB-200 Linear. Mint condition with Instruction Manual \$400

COLLINS 51S-1 Receiver. Excellent condition \$300

HALLICRAFTERS SR-150 Transceiver with PS. Mint condition. Inst. Manual \$175

JOHNSON 275 Watt Match Box . . . \$40

WANTED: Grand Digital Readout for Collins KWM-2A or 32V.

Warren Dean - KW3N, Route 3, Box 575, Hollywood, MD 20636 (301) 373-5457 (03X)

AMERICAN INDIAN AMATEUR RADIO ORGANIZATION

Now forming is the "Little Big Horn Amateur Radio Organization", A group of Native American hams and hams of other ethnic backgrounds who are interested in Native American culture and history. Membership is free. For details, contact M. McDaniel - W6FGE, 940 Temple St., San Diego, CA 92106 (03)

FOR SALE or TRADE: Signal/One CX7A HF rig, 160-10 Meters, digital (nixie tubes) dual VFO's, full break-in, works fine, good condition, will demonstrate - \$350. Also have Heathkit SB-614 station monitor, dead H.V transformer winding, all other components fine, excellent condition - \$50. Johnson variable air capacitor: 465pf @ 3500V - \$15. Mark Moon - N3AVA (703) 438-1851 (Great Falls, VA) (03)

This Space is Available

For Your Ad

Hams like to do business with other hams

Advertise in Auto-Call

WANTED: ICOM 761 or Kenwood TS-930S, 440 MHz base rig, private patch controller, 440 repeater duplexers, repeater controller, 1" 50 ohm hardline connectors (N or UHF). All offers and trades will be considered. Mark Moon - N3AVA (703) 438-1851 (Great Falls, VA) (03)

FOR SALE: Three element, three band, GEM Quad spider antenna, plus rotor, and 5 sections of Rohn RG-25 tower. Can be used as two element. Each band fed separately. All good condition. Sold as unit only. \$425 firm. Buyer must take down. Doug Boswell, KJ4RO Clarksville, VA (804) 374-2998 (05)



Become a part of one of the country's fastest-growing vintage radio clubs. The Mid-Atlantic Antique Radio Club is an active group of radio collectors, restorers and historians. For a sample newsletter, write Joe Koester, 249 Spring Gap South, Laurel, Md 20707. (301) 725-4229. (S)

FOR SALE: Pair new CERTRON 572Bs - \$100 firm. AEA PK-64 w/HFM, manual, used little - \$100. HALLICRAFTERS clean SX-111 receiver, tubed, aligned, manual - \$75. Clean HAMMARLUND HQ-170C receiver (160 - 6 Meters, tubed, aligned, manual - \$125. ATLAS 210X Limited Edition transceiver (80 - 10 Meters) near mint, manual - \$300. ATLAS 215X transceiver (160 - 15 Meters), outstanding condition, manual - \$300. HEATH DX-40 transmitter, works fine, cosmetically fair - \$20. Offers considered. Terry Thompson (703) 759-9436 after 6:00 p.m. (Great Falls, VA) (03)

The HANDI-HAM System is an international organization of able-bodied and disabled hams who help people with physical disabilities expand their world through Amateur Radio. The System matches students with one-to-one helpers, provides instruction material and support, and loans radio equipment.



Call or write the Courage HANDI-HAM System W0ZSW at Courage Center, 3915 Golden Valley Road, Golden Valley, Minnesota 55422, phone (612) 588-0811.

SHACK SALES

FOR SALE: DRAKE L-7 Linear
two 3-500 Zs - \$700. TS 430 S - \$600.
Bill - W4YKH Phone (703) 533-0359
(Falls Church, VA) (03)

FOR SALE: Six Meter gear, in excellent
condition, complete with mikes,
crystals and manuals.

(1) G.E. Prog Line FM transceiver
with xtals for simplex and local
repeater.

(2) Gonset G-50 AM Communicator
with 50.4 MHz xtal and

(3) Gonset VFO covering 50, 144 and
220 MHz bands. Price \$40 each or
\$100 for the lot.

Nate Green - N3ARD (301) 649-3669
(Wheaton, MD) (03X)

FOR SALE: Mosley Classic 33 3-element
tribander. Too big for my QTH. On
ground, pick up only - \$125. Alan -
N4LUS, Bethesda, MD (301) 229-7069
evenings or leave message. (04)

AMATEUR RADIO NEWS SERVICE is an
organization of editors and publishers
of Amateur Radio newsletters and
members engaged in public relations.
Its purpose is to assist editors in any
way possible. For information, write
to Lee Knirko - W9MOL, 833 Park Plaine,
Park Ridge, IL 60068 (S)

Hams like to do business with other
Hams. ADVERTISE IN AUTO-CALL.

CHESS ON AMATEUR RADIO

Members of Chess & Amateur Radio
International play chess everywhere!
You'll find them on CW, SSB, RTTY,
Packet, OSCAR, computer BBS, etc.
Find out more by writing CARI 508 20th
Street, Cloquet, MN 5720 (S)

HOME QTH FOR RENT UNFURNISHED
1.5 miles outside Vienna, Virginia
First time offered
NO ANTENNA RESTRICTIONS!!

55' tower with tribander & 2 meter
beam. Large room for shack, with
outside entrance, separate 110 & 220
a.c. circuits, handy cable entry. 1/2
acre corner lot with lots of room for
wire. 3 level split, 4 or 5 bedroom
2-1/2 bath. Living/dining room opens
onto large deck. Large family room
with fireplace. Large eat-in kitchen
with handy entrance from 3-car garage
with automatic door opener & workshop.
Covered porch with ceiling fan.
Utility room, all electric with solar
hot water. Freezer/washer and dryer/
wall bookcase unit included at your
option. Access to WO&D bike path --
bike to Vienna Wireless Society
meetings in 15 minutes! Convenient to
Metro, schools, and shopping. Will be
available in June for up to 3 years.
Two year lease. \$1425/month. Call
Jeff - W4NFA or Pat KA4SMS at (703)
281-4249. (04)

WANTED: ICOM 27A/H 2-meter FM Xcvr
(will consider others).

FOR SALE: DX Engineering speech
processor for DRAKE transceivers, with
instructions - \$80. COLLINS 75S-2
with 500 Hz CW filter and WATERS
rejection tuning, 32S-3 with 516F-2
power supply, plus a 32S-1 (spare),
all with books, clean - \$500. SWAN 350
Xcvr (400 PEP) with external VFO, AC
power supply, Swan Mic, book, clean -
\$350. SWAN MARK II Amplifier, pair
3-500Z, 2 KW, 110/220 AC power supply,
book, clean - \$450. Mike Ludkiewicz,
W1DGJ, 143 Richmond Road, Ludlow, MA
01056 (413) 583-6678. (03)

Serio & Company, Chartered
Certified Public Accountants

7910 WOODMONT AVE., SUITE 1110, BETHESDA, MD 20814

JOHN T. NUTTMANN, CPA

(301) 652-5040



Society

Of Wireless Pioneers

THE INTERNATIONAL ORGANIZATION
OF PROFESSIONAL RADIO TELEGRAPHERS

WM J DROWN, SEC 365-2049

AUTO-CALL PRODUCTION POLICY

Answers to Questions We Receive

Copy for Auto-Call will be accepted in any form - handwritten, typed, compatible computer disk or modem. (We use an IBM AT clone and WordPerfect 5.0 word processing program, Hayes compatible modem - 300 or 1200 baud.) All hard copy is re-typed to preserve uniformity of style in the magazine.

For your benefit in determining spacing, type 80 (12 pitch) characters per line and 60 lines per page - including the space taken up by headings, photographs, etc. Either black-and-white or color photos can be used as long as the contrast is good. Master copy, which is to be reproduced directly, should be in black ink on white paper. Any copy can be reduced or enlarged as desired.

Columns from Foundation member clubs are eagerly solicited and any items of general Amateur Radio interest are most welcome. The editor does reserve the right to edit or reject any portion of any copy submitted and to make minor changes to make copy fit available space.

SHACK SALES

Shack Sales will **NOT** be accepted over the telephone. Remittance must accompany each ad. Full address must be provided for our reference but need not be published. Deadline for copy is the 8th of the month preceding the publication date.

Each ad must include the call sign or the full name of the advertiser. If the full address is not included in the ad, we prefer to indicate the city along with the telephone number so that readers will know whether a long-distance charge is involved. The entire telephone number - including city - counts as only one word. We do not count postal zip codes. Otherwise, each word, abbreviation, model number of group of letter/numbers is counted as one word.

For additional information see the next column regarding advertising rates or phone Auto-Call editor at (703) 536-8469.

Auto-Call Advertising

SHACK SALES

Noncommercial advertising of Amateur associated equipment is available to subscribers of Auto-Call at a rate of 3¢ per word -- with a \$1 minimum. Commercial vendors and nonsubscriber rate is 17¢ per word -- with a \$5.50 minimum.

Special headings or special spacing (e.g., one item per line) may be used but such ads will be charged at a column inch rate -- \$1 per inch for noncommercial, \$5.50 per inch for commercial vendors and nonsubscribers.

Full name and address must be provided with each ad but need not be published. No ads will be accepted over the telephone and all ads must be pre-paid. Since no effort is made to investigate advertisers, no warranty can be implied.

DISPLAY ADS

DISPLAY ADS are "boxed" and may contain artwork or photographs. They may be placed along with the Shack Sales or displayed in other sections of the magazine. Requests for specific locations will be honored if practical but cannot be guaranteed.

DISPLAY ADS are charged according to size and duration of run. Rates per issue:

Page	Col. inch	1 Year	6 Times	3 Times	1 Time
Full.....	18	\$75.00	\$90.00	\$100.00	\$105.00
1/2.....	9	55.00	65.00	71.00	75.00
1/3.....	6	40.00	46.00	51.00	54.00
1/4.....	4½	33.00	38.00	41.00	43.00
1/6.....	3	22.00	26.00	28.00	30.00
1/8.....	2½	17.00	20.00	22.00	23.00
1/9.....	2	16.00	19.00	21.00	22.00
1/18.....	1	8.50	10.00	11.00	11.50

Based on camera-ready artwork.
Extra charge for halftoning photos.

All copy must be received by the 8th of the month preceding publication.



JOIN ARRL

BENEFITS FOR YOU

QST, QSL Bureau, Awards, Low Cost Insurance, Operating Aids,
Government Liaison and More—Much More!

MEMBERSHIP APPLICATION

Name _____ Call _____

Street _____

City _____ Prov./State _____ PC/ZIP _____

\$25 in U.S. \$36 elsewhere (U.S. funds) Licensed amateurs, or age 65 or over, upon submitting proof of age, may request special dues rate of \$20 in the U.S. \$31 elsewhere, in U.S. funds. Persons age 17 and younger may qualify for special rates, write for application.

For postal purposes, fifty percent of dues is allocated to QST, the balance for membership.



Expires _____

Bank. No. _____ Expires _____

The American Radio Relay League

225 Main St.

Newington, CT. 06111

USA

AUTO

CALL

Atlantic Division Director
Hugh Turnbull, W3ABC
6903 Rhode Island Avenue
College Park, MD 20740
Phone: (301) 927-1797

Roanoke Division Director
John Kanode, N4MM
Rt 1, Box 73-A
Boyce, VA 22620
Phone: 703-837-1340

AUTO-CALL Magazine

P.O. Box 7612

Falls Church, VA 22046-1452

Please enter my NEW _____ RENEWAL _____ Subscription to Auto-Call

For 1 Year _____ 2 Years _____

(Subscription rate: \$6.00 per year)

(Sample copy of latest issue \$1.00)

NAME _____ CALL _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

Make check payable to Foundation For Amateur Radio

MARCH 1989

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1 BARC MARC	2 Anne Arundel	3 Mobileers Shenandoah	4 <u>EXAMS</u> College Park Roanoke, VA Peninsula, VA
5 <u>EXAMS</u> Rock Creek	6 DOS	7 Antietam PG Wireless	8 Laurel (Inf) MADRAS Pentagon --FAR--	9 Mt.Vernon No VA ARC	10 Alexandria SMARC Vienna	11 <u>EXAMS</u> Harrisonburg
12 Metrocom	13 PVRC	14 APL FARC	15 BARC Goddard MARC QCWA #137	16 Anne Arundel	17 RCARA (12 Shenandoah	18 Cap City Tri County <u>EXAMS</u> Richmond
19 <u>EXAMS</u> Baltimore	20 Ole Va Ham PARC	21 Antietam Arlington Woodbridge	22 Laurel MADRAS	23 St. Mary's	24 Alexandria Vienna	25
26 Adventists	27	28	29	30	31	

NCDXA Net every Sunday, 147.420 at 8:30 p.m.

AUTO-CALL

P.O. Box 7612

Falls Church, VA 22046-1452

Nonprofit Organization
U.S. Postage Paid
Arlington, VA 22210
Permit 757

ADDRESS CORRECTION REQUESTED

EXP 89/APR 02133 GIFT FM W4HU
FRED LAUN K3ZO
POB 31097
TEMPLE HILLS MD 20748